JANUARY
1954

Amateur Radio

JOURNAL OF
THE WIRELESS
INSTITUTE OF
AUSTRALIA

For the Experimenter
and Radio Enthusiast

1/-

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"HAM" RADIO SUPPLIERS

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Meters—0-20 volt, 5 Ma. movement, square type, 2 inch, new 15/-

Meters—0-2.5 Amp. R.F., square type, 2 inch, new 15/-

Meters—0-5 Ma., 1½ Ma. movement, round type, 2 inch, new 22/6

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211	30/-
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884 Gas Triode	25/-
100TH	45/-
954 American	10/-
955 American	10/-
957 Acorn Triode. Filament: 1.25v. at 50 Ma., plate current 2 Ma. Ideal for portable equipment	10/-
EF50	10/-

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1S5	10/-	7C7	10/-
2A3	10/-	7F7	10/-
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3A4	10/-	7N7	10/-
3Q5	10/-	7W7	10/-
5R4GY	20/-	7Y4	10/-
5U4	12/6	12A6	10/-
6A3	10/-	12AH7	10/-
6A8	10/-	12C8	10/-
6AC7	10/-	12J5	10/-
6AG5	15/-	12SG7	10/-
6BE6	15/-	12SK7	10/-
6C4	12/6	12SQ7	10/-
6C5	10/-	12SR7	10/-
6C6	7/6	807	10/-
6C8	10/-	809	50/-
6F5	10/-	813	60/-
6F6	10/-	815	50/-
6F8	10/-	832	50/-
6G6G	10/-	866	20/-
6H6	5/-	956	10/-
6J5GT	10/-	1603	10/-
6J6	15/-	1626	10/-
6K6	10/-	1629	10/-
6K7G	7/6	2051	10/-
6L7	10/-	7193	5/-
6N7	10/-	9002	10/-
6N8	15/-	9003	10/-
6R7	10/-	9004	10/-
6SH7	5/-	EF50	7/6
6SH7GT	4/-	OA4	10/-
6SJ7	10/-	VR105	15/-
6SK7	10/-	VR150	15/-
6SL7	15/-	VR65A	2/6
6SN7	10/-		
6SS7	10/-		

Command Receivers, 150—550 Kc., £9/10/-

Command Receivers, 3 to 6 Mc., and 6 to 9 Mc. As new, less genemotor; air tested, £7/10/-

AR8 Receivers, complete with Valves and air-tested £22/10/-

AR12 Receiver, converted to 230v. AC, contains Xtal Filter £27/10/-

AR8 Connecting Cables, 8-pin sockets, 5/- ea.

522 Receivers, original cond. with valves, £9

R1155A English Com. Receiver, nine valves, five bands, freq. range: 75 Kc.-18 Mc., original condition, less power supply, £29/10/-

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American Antenna Change-over Relays, "Leach," 24 volt 250 ohms, ceramic insulation. Beautiful job. A gift at 35/-

Coils, small slug-tuned type, suitable for Converters, etc. 3/6

Shielded Wire, 16 a.w.g. single core. In 100 yard roll 30/-

English Carbon Mike Transformers, new, 5/-

LARGE STOCK OF CRYSTALS

100 Kc. R.C.A. Crystals £4

1,000 Kc. Crystal mounted in case with 10-pin valve socket and 4-pin Continental power plug 35/-

Marker Crystals, 3.5 Mc., 5 Mc., and 10 Mc. Crystals ground to any frequegncy. Price on request.

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330 Kc.	5170 Kc.	7096 Kc.	8176.923 Kc.
500 Kc.	6000 Kc.	7097 Kc.	8182.50 Kc.
775 Kc.	6200 Kc.	7100 Kc.	8183.5 Kc.
1777.5 Kc.	7010 Kc.	7109 Kc.	8317.2 Kc.
2050 Kc.	7012 Kc.	7118 Kc.	8318 Kc.
2075 Kc.	7013 Kc.	7121 Kc.	8320 Kc.
2716 Kc.	7020 Kc.	7125 Kc.	8488 Kc.
3482.5 Kc.	7021 Kc.	7126 Kc.	8500 Kc.
3503 Kc.	7022 Kc.	7130 Kc.	9125 Kc.
3509 Kc.	7023 Kc.	7134 Kc.	10 Mc.
3511 Kc.	7031 Kc.	7145 Kc.	10.511 Mc.
3512 Kc.	7032 Kc.	7156 Kc.	10.524 Mc.
3515 Kc.	7032.6 Kc.	7163 Kc.	10.530 Mc.
3516 Kc.	7048 Kc.	7174 Kc.	10.536 Mc.
3528 Kc.	7052 Kc.	7179 Kc.	10.544 Mc.
3532 Kc.	7062 Kc.	7202.3 Kc.	10.546 Mc.
3539.3 Kc.	7063 Kc.	8000 Kc.	10.563 Mc.
3634 Kc.	7064 Kc.	8017.5 Kc.	11 Mc.
3640 Kc.	7068 Kc.	8027 Kc.	12.803 Mc.
3675 Kc.	7072 Kc.	8028.5 Kc.	14.020 Mc.
4285 Kc.	7089 Kc.	8092 Kc.	14.105 Mc.
4600 Kc.	7090 Kc.	8155.71 Kc.	14.325 Mc.
5000 Kc.	7093 Kc.	8171.250 Kc.	14.322 Mc.

WANTED TO BUY—RADIO PARTS, VALVES, TRANSFORMERS, RECEIVERS, TRANSMITTERS, ETC.

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MSS. and Magazine Correspondence should be forwarded to the Editor, "Amateur Radio," Law Court Chambers, 191 Queen St., Melbourne, C.1, on or before the 8th of each month.

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Wireless Institute of Australia (Victorian Division) Rooms' Phone Number is FJ 6997.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours EST, 7146 Kc. and 2000 hours EST, 50 and 144 Mc. No frequency checks available from VK2WI. Intrastate working frequency, 7135 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3573 and 7146 Kc., 51.015 and 146.25 Mc. Intrastate working frequency 7135 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3560 and 14342 Kc. 3560 Kc. channel is used from 0915 hours to 1015 hours each Sunday for the W.I.A. Country hook-up. No frequency checks available.

VK5WI: Sundays, 1000 hours SAST, on 7146 Kc. Frequency checks are given by VK5MD and VK5WI by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0930 hours WAST, on 7146 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7146 Kc. and 146.5 Mc. No frequency checks are available.

AMATEUR RADIO

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Melbourne, C.1.

EDITORIAL

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LOOKING FORWARD

With the dawn of the new year, Federal Executive dons battledress once more and sallies forth to do battle for the advancement of the Amateur cause, with full implementation of 1953's promises and TV for Hams as the first two planks in a large platform.

This year we will be honoured by a visit from our gracious Queen Elizabeth II. Who can predict what special service the Amateur fraternity may possibly be called upon to perform for Her Majesty; however, of one thing we are perfectly sure, every Amateur will be ready and willing to serve, will acquit himself well if called upon and will fulfil in every way the requirements laid down in the Amateurs' Code.

If the changed date of the National Field Day achieves its purpose, we should be able to record a bumper harvest of logs.

Divisional membership in general should show a marked increase with the admittance of Limited A.O.C.P. holders. No doubt our astute membership committees will conduct a vigorous campaign.

Amongst the most important events for 1954 will be the publication by the W.I.A. of the first edition of "The Australian Amateur Call Book," a completely up-to-date volume which will take pride of place in every Ham shack.

The magazine "Amateur Radio," too, will show marked improvement before the year is out.

With your co-operation all this adds up to a **Happy** and **Prosperous New Year** for the Institute and its members.

FEDERAL EXECUTIVE.

THE CONTENTS

WALTHAM TRADING CO.

319-321 SWANSTON STREET, MELBOURNE
393 FLINDERS STREET,
AND
96 OXFORD ST., SYDNEY

MAIL ORDERS WILL BE EXECUTED AT BOTH BRANCHES. PLEASE ADDRESS ALL MELBOURNE CORRESPONDENCE TO: P.O. BOX 5234, MELBOURNE

AT5/AR8 TRANSMITTING AND RECEIVING EQUIPMENT

AT5 TRANSMITTER

A high powered unit using two 807s in final. Covering 140 Kc. to 20 Mc., with provision for six crystals and a V.F.O.

£9/17/6

CONVERTED RECEIVER

To operate direct from 220-250 volt A.C. Output stage also altered to improve tone and reception. Complete with loud speaker in leatherette case.

Price £34/17/6

AR8 RECEIVER

11 valve twin channel Receiver, using standard 6.3v. octal valves; six bands. Complete coverage 140 Kc. to 20 Mc.

£23/17/6

AERIAL COUPLING UNITS
Price £3/10/-

JUNCTION BOX AND CABLES
Price £5

POWER SUPPLY, 12 or 24 volt
Price £10

COMMAND

RECEIVERS

Type BC453, 190 to 550 Kc., **£12/10/-.**

BC454, 3 to 6 Mc., **£7/10/-.**

BC455, 6 to 9.1 Mc., **£7/10/-.**

TRANSMITTERS

Type BC457, 4 to 5.3 Mc., **£7/10/-.**

BC458, 5.3 to 7 Mc., **£7/10/-.**

BC459, 7 to 9.1 Mc., **£7/10/-.**

COMMAND MODULATOR UNIT, Type BC456E

In new condition, contains:
1—12J5
1—1625
1—VR150/30
3—24v. Relays

Price, £3/10/-

COMMAND RECEIVER CONTROLS, Type BC450

3—Slow Motion Dials.
6—Single Pole Double Throw Switches.
4—Miniature Jacks.
3—Volume Controls, approx. 500 ohms.

Price, £1/15/-
Post. & Pack.: 6/-, Interstate 8/6.

VALVES

BRAND NEW IN ORIGINAL CARTONS

1H6	7/6	813	60/-
1K7	10/6	VR150/30	22/6
6AC7	15/-	954	7/11
6B8	15/-	955	7/11
6F6	12/6	12A6	12/6
2051	22/6		
6K6G	12/6		
6L7	12/6		
807	25/-		
830B	60/-		

2050, **22/6.** This valve is suitable for use with Photo Cell Relay Unit, as per June, 1953, issue of "Radio and Hobbies."

RADIO TRANSCEIVER AND INDICATOR UNIT

V.H.F. Approximately 180 Mc.

Type 1045. Valve line-up in Transceiver: 2—RL18, 1—VR135, 1—5V4, 1—EA50, 1—RL37, 6—EF50, 1—6SN7, 1—GL2050 (Thyrotron), 2—VR150/30 (Voltage Regulators), 1—884 (Gas Triode). This unit also contains a motor driven Selector Switch, two superbly designed Polystyrene six-position rotary Coil Turrets, and an I.F. Transformer strip ideally suitable for use with Television. Band width 10 Mc.

Indicator Unit, Type 1047, Valve line-up: 7—EF50, 1—879, 1—VR54. Also contains a 3,000 type Relay 2,000 ohms, ten assorted Potentiometers, a two-bank Ceramic Wafer Switch, and an illuminated scale (5BP1 tube and shield not included).

These two Units are brand new, and are packed together in their original packing cases.

PRICE **£21/10/-** the two.

Transceiver ..... £15/-/- } if supplied separately.
Indicator Unit ..... £7/10/- }

ASD RECEIVERS TYPE CPM-46A-BG

V.H.F. RECEIVERS, approx. 300 Megs.

Containing the following Valves:

9—6AC7	2—6V6G	1—6SJ7
1—6H6	1—6SN7G	2—6X5GT
2—2050	2—VR105/30	2—5U4G
1—6A4G	1—VR150/30	2—2A3

Price £17/10/-

TRANSMITTER-RECEIVER

Type RT-34/APS-13

Frequency Modulated, approx. 450 Mc. Valve line-up:
9—6AG5
5—6J6
2—2D21
1—VR105

Also contains Dynamotor, input 27v. 1.5 amp., output 285v. 60 Ma. Price **£17/10/-**

GENEMOTORS

Type 72—Input: 27v. 3.6a., Output: 250v. 70 Ma., and 12.6v. 2.6 a., **£1/19/6.**

Type DA-3A—Input: 28v. 10.5a., Output: 300v. 260 Ma., 150v. 10 Ma., 14.5v. 5a., **£1/9/6.**

Type 31—Input: 18v. 12a., Output: 7.2v. 13a., 225v. 110 Ma., **£1/19/6.**

TRANSMITTING TUNING UNITS by G.E.

Type TU10B
10000 to 12500 Kc., **£2/10/-**
Type TU7B
4500 to 6200 Kc., **£2/10/-**
Type TU6B
3000 to 4500 Kc., **£3/10/-**
Type TU9B
7700 to 10000 Kc., **£2/10/-**

BENDIX RADIO AZIMUTH CIRCLE LOOP AERIAL CONTROLS, Type MN22A

Price 35/-.
Post. & Pack.: 4/9, Interstate 6/-.

Simple Converter for Two Metres

BY F. G. BAIL,* VK3YS

WITH the introduction of the Limited Class A.O.C.P., there are no doubt many who will be endeavouring to get together suitable gear for v.h.f. operation. Here is a simple converter which will help to provide a necessary part of the equipment—the receiver.

If you have a reasonably good s.w. or d.w. receiver, then you have the basis for a v.h.f. receiver. The 274N Command series of disposals receivers (e.g. the BC455) are excellent, requiring little modification to get them into operation from either battery or a.c. power supply, are well shielded, and in addition have a b.f.o. already built in for c.w., an advantage when locating a weak signal. The converter to be described uses standard circuitry, and parts which are readily available. When once aligned, it provides ease of tuning with single dial control, and is simple to construct.

A 6J6 twin triode valve combines the function of mixer and oscillator. An aluminium chassis, 8" x 5" x 2½", was selected as it has sufficient space for the addition of an r.f. stage at a later date. The choice of the main components is of some importance. The oscillator tuning condenser, C3, is a standard 15 x 15 pF. split-stator type cut down to one rotor and one stator plate per section. A smooth, positive action vernier control should be used, one possibility being a dial mechanism from the p.a. section of the BC375 or BC191 "TU" coil units. These dials have a flexible coupling attached, suitable for a ¼" shaft. A hot soldering iron applied to the shaft coupling screws will soften the blue "locking" adhesive sufficiently to allow their removal with a hexagon key wrench or the "tang" of a small file. The circular "stop" plate can be trimmed down with a jeweller's saw blade in a fretsaw frame, or (with care), by use of a pair of good quality tinsnips.

The tuning condenser, with the oscillator coil soldered across the end, is fixed to a bracket underneath the chassis at one end (shaft at right angles to the short dimension of the chassis), with the valve socket about ¾" to the rear of the condenser. If the dial is mounted first, then the bracket size can be made to suit the final position of the dial coupling.

The valve plugs in above the chassis. This arrangement minimises the possibility of drift due to heat radiation from the valve affecting the oscillator components. The 3-12 pF. ceramic trimmer, C2, is soldered directly across the stator sections of C3 and is accessible for adjustment through a hole drilled in the top of the chassis.

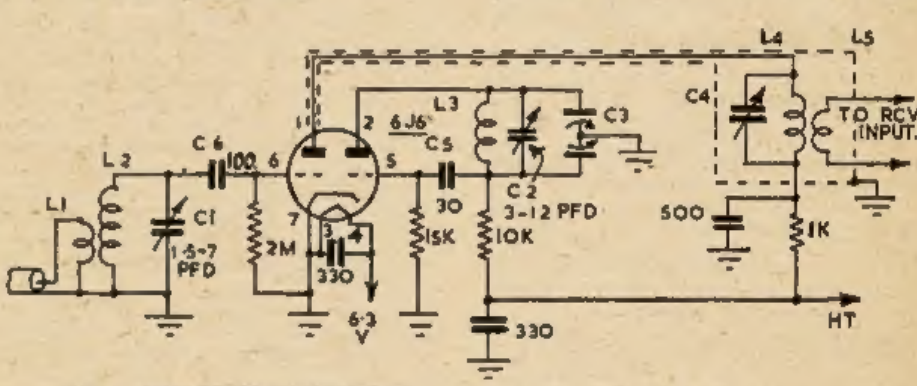
* 60 Shannon Street, Box Hill North, E.12, Vic.

The triode section of the 6J6 to which the "getter" support is attached to the anode, should be used for the mixer section rather than for the oscillator, in order to reduce the possibility of microphonic effects. This is pin No. 2 with valves of U.S.A. origin, but is sometimes pin No. 1 with valves of English manufacture. Check this when you obtain your 6J6. The "getter" support is visible through the envelope.

Mount the filament by-pass right at the valve socket onto the centre shield of the socket, this being wired to earth. Failure to do this originally, resulted in "joeys" throughout the band.

The antenna coupling coil, L1, which is anchored to a resistor strip, is tightly coupled to the mixer coil. It may be necessary to experiment with the number of turns on L1 for different forms of antenna feed.

The frequency of the converter i.f. output is not critical; 7.4 Mc. was chosen as it was desired to keep it the same as that used in the station 2 metre receiver. It can be higher if desired.



All resistors half watt carbon.
By-pass condensers midget mica or preferably Hi-K midget ceramics.
C5 and C6—N.P.O. ceramicons.
Trimmers C1 and C2 ceramicon type, 1.5-7 pF. and 3-12 pF. respectively.
C3—See text.

Coil Data.—

L1—1 turn interwound between 1st and 2nd turns of L2. 20 s.w.g. insulated wire.

L2—3 turns ½" diam. ½" long. 20 s.w.g. wire.

L3—4 turns ¾" diam. ½" long. 20 s.w.g. wire.

L4—26 turns close wound on ¼" diam. former. 26 s.w.g. d.c.c. wire.

L5—3 turns at bottom of L4. 26 s.w.g. d.c.c. wire.

This data applies for mixer and oscillator coils if their leads to the condensers are no more than ¼" long.

After completion of the wiring, the power can be applied and voltages checked. 100 to 150 volts h.t. is sufficient and current drain is approximately 10 Ma. A quick check can be made for operation of the oscillator stage with a loop and a 40 Ma. globe. The glow from the globe will be plainly visible if the stage is oscillating.

With the output of the i.f. coil coupled by means of a shielded wire to the input terminals of the main receiver, which is tuned to the converter i.f., a noticeable increase in hiss level should be heard when the converter is switched on. Adjust C4 for maximum hiss level. Don't forget to run the shielding of the coupling lead right up to the main receiver antenna terminal, keeping the lead from the receiver earth terminal to the braid as short as possible, and enclose the i.f. coil in a small can, to reduce pick-up on the i.f. frequency. It is a good idea to by-pass all power leads at the point of entry into the chassis, and even to shield these leads to ensure minimum extraneous pick-up.

If a grid dip oscillator is available, the job of lining up will be very much simplified, but with care and patience it should be possible to get very close to the desired adjustments. If you know of a 2 metre Ham in your vicinity, ask him to run a tone test signal for you. It is a little frustrating if you have no signal at all to aid in the initial tuning! Try and get the oscillator on the low side of the band, i.e. tuning 137 to 141 Mc. The trimmer should be about one-third or half maximum capacity for this frequency. Adjust C1 for peak in noise with antenna connected.

By the way, a half wave antenna for 144 Mc. is 39 inches long. Stiff copper wire or tubing will enable a self supporting dipole to be constructed. Get your antenna up as high as possible and in the clear. Contact your local V.h.f. Group for details of stations active in your area, and don't forget that most of the W.I.A. Divisions have an instrument library with v.h.f. test gear for use by members.

Modifying the Bendix RA-10-FA Receiver

BY E. CORNELIUS,* VK6EC

This receiver is widely used among Amateurs and lends itself admirably to modification for Amateur purposes.

The modifications incorporated here are as follows:—

1. Improved mechanical layout.
2. Amateur bandspread on 3.5, 7, 14 and 21 Mc. bands.
3. Addition of a series-shunt noise limiter.
4. Addition of an S meter.

MECHANICAL LAYOUT

The wave-change and tuning controls come out at the ends, making the receiver inconveniently deep, and restricting available panel space for controls. Right angle drives were tried, and were unsatisfactory.

The major change (credit to VK6GB) is to rotate the coil boxes and tuning gang through 90°, and bring all controls out of the long side, remote from the tube line-up. This will be the front, and a false panel, which may be used for rack mounting, is spaced ¾" in front of the receiver box.

Fig. 1 shows from above the new layout of coil boxes and gang, the gang shaft being centrally mounted. This is fitted with an Eddystone log dial.

It is assumed that prior to any work outlined here, those interested will have removed genemotor and filter, and wave-change motor and gears. Also have re-wired the filaments for 6 volt operation, and removed the filament jumper and resistor tag strip.

The new layout of coils makes it essential to re-locate the r.f. and mixer stages. This can be done as shown in Fig. 2 by mounting them under the chassis, allowing very short leads to their respective coil boxes.

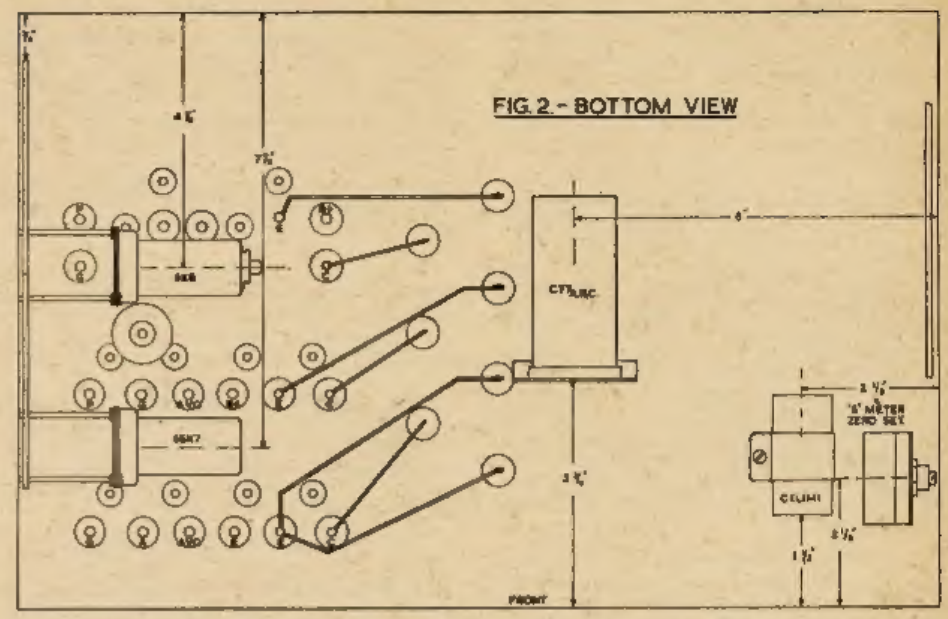
Fig. 2 shows the relevant components in the new under chassis layout. The section of resistor strip for the 6SK7 r.f. stage is cut from the remainder of the strip on the rear apron and re-located toward the front, behind the r.f. stage socket. The 6K8 screen and cathode strip is also mounted on this end, next to the strip abovementioned. The valve sockets are spaced away from the end by ¼" bolts as stand-offs.

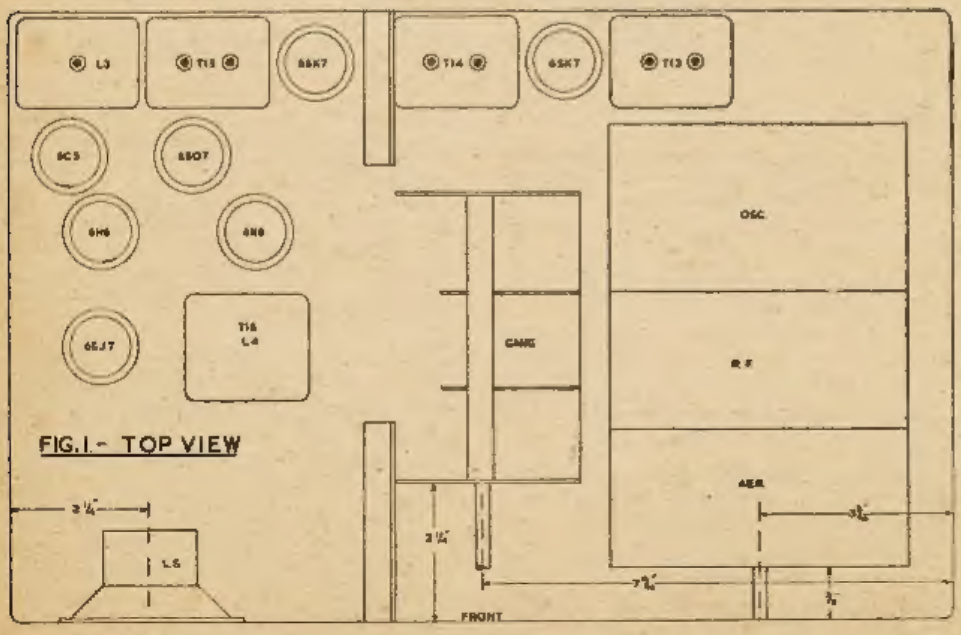
The electrolytic filter capacitor group (3 x 30 uF.) is mounted on a bracket, horizontally under the chassis as shown, as it fouls the new position for the gang capacitor.

All the controls are brought out through the front apron, allowing room for a 2" S meter in the panel in the right hand top corner. This will project through the front of the receiver box as well but clears the front (Ant.) coil box. A 3" loudspeaker is mounted on the left hand side of the panel, the cutout in line with the dial. See Fig. 3 for panel layout.

The wave-change shaft extends through a bush in the front of the receiver with a 1" brass pulley, slotted for the pin in the shaft, and taking a 3/16" wide flat belt of shim brass to a similar pulley. This pulley is mounted on the shaft of a Yaxley switch plate, at extreme bottom right. The plate is used solely for indexing. The belt and pulleys are shown dotted in Fig. 3.

An a.c. power supply is mounted outboard, on a separate chassis, along part of the rear of the receiver, and fixed to it. The transformer and filter choke available were too large for mounting inside, but this would be possible with miniature types. The intercom. relay, left in situ, was wired to break the transformer centre tap, as "send-receive" relay.





BANDSPREADING

The coverage of the receiver was—

Band 1: 200-400 Kc.
2: 2-5 Mc.
3: 2-5 Mc.
4: 5-10 Mc.

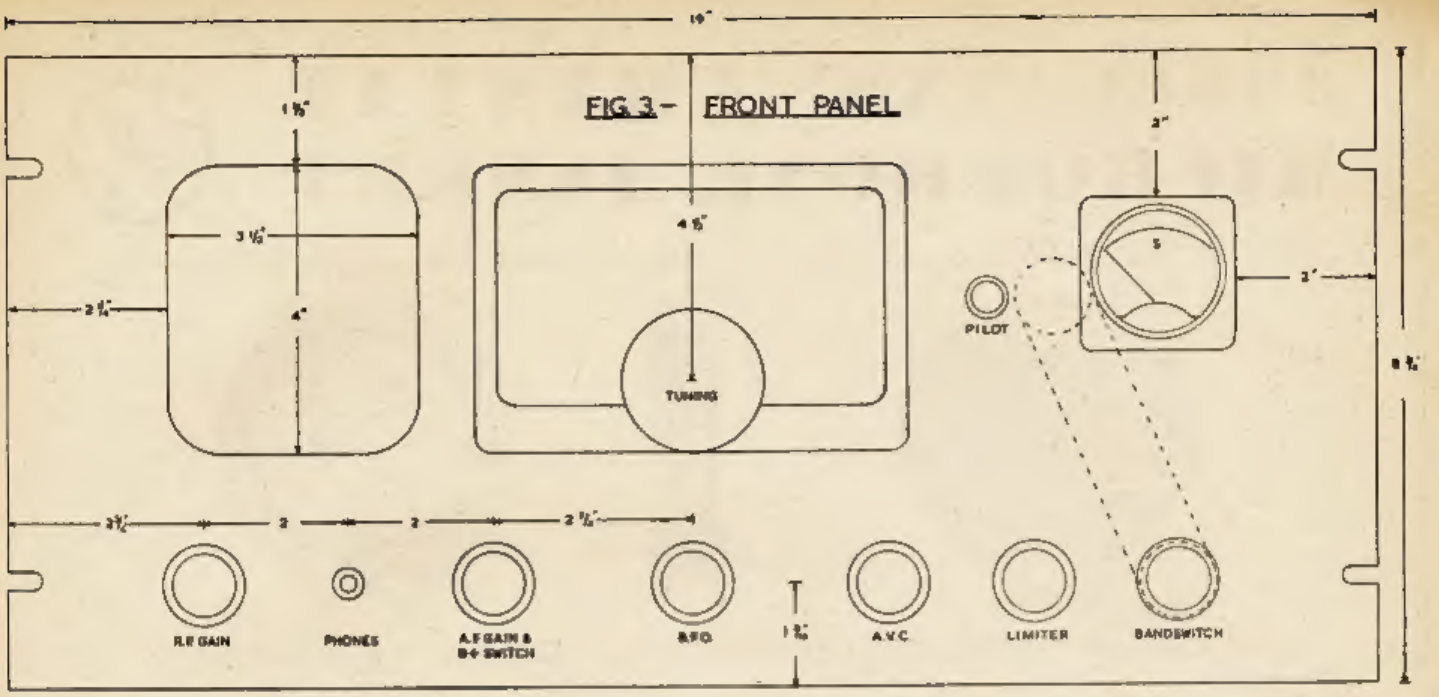
Bandspread coverage after amendment is—

Band 1: 3.5-3.8 Mc.
2: 7.0-7.15 Mc.
3: 14.0-14.35 Mc.
4: 21.0-21.45 Mc.

The basic original oscillator and r.f. circuits are shown in Figs. 4a and 4b. The new bandspread circuits are in Figs. 4c and 4d. Switching points are marked at X.

It will be seen that the r.f. and aerial coils are switched at three positions, requiring an extra switch wafer for each box. One may be scored from the auto-wave-change homing mechanism, but

* C/o. Station 6WA, Wagin, Western Australia.



any standard Oak wafer will do. There is ample room in the boxes for the new wafer.

In each case Cs is a band setting capacitor, variable in the oscillator box. Cp is a padding capacitor to reduce the frequency coverage to bandspread only. It is variable in every case. C is in parallel with each section of the gang, and prevents crowding of the scale at the high frequency end. C is 100 pF., and mounted in each box across the gang terminal and the earth terminal next to it.

OSCILLATOR SECTION

Electrical

Band (1) 3.5-3.8 Mc.

Oscillator coverage: 5.13-5.43 Mc. (using 1630 Kc. i.f.).
Coil: 2-5 Mc. coil unaltered.
Cs: 50 pF. fixed plus 50 pF. (17 plate) trimmer (10% in mesh).
Cp: 50 pF. fixed plus 25 pF. (9 plate) trimmer (90% in mesh).

Band (2) 7.0-7.15 Mc.

Oscillator coverage: 8.63-8.78 Mc.
Coil: 2-5 Mc. coil as follows:—
Pri. 5 turns, Sec. 8 turns, spaced ¼".
Cs: 100 pF. plus 50 pF. trimmer (90%).
Cp: 30 pF. plus 25 pF. trimmer (50%).

Band (3) 14.0-14.35 Mc.

Oscillator coverage: 15.63-15.98 Mc.
Coil: 5-10 Mc. coil as follows:—
Pri. 4 turns, Sec. 5 turns, spaced ¼".
Cs: 50 pF. plus 25 pF. trimmer (50%).
Cp: 20 pF. plus 25 pF. trimmer (60%).

Band (4) 21.0-21.45 Mc.

Oscillator coverage: 22.63-23.08 Mc.
Coil: 200-400 Kc. former only, with slug; Pri. 3 turns, Sec. 4 turns, spaced 3/32".
Cs: 30 pF. plus 25 pF. trimmer (90%).
Cp: 20 pF. plus 25 pF. trimmer (50%).

Mechanical

Disconnect leads to xtal 1 and 2 terminals, and leave these vacant. Mount 100 pF. capacitor (C) in box across gang terminal and earth. Relocate Cs and Cp trimmers as below so that 50 pF. and 25 pF. units are located near the coils with which they are used, transferring left hand and right hand assemblies as need be, for short wiring to Cp.

Trimmer layout is as follows, viewed from front of box:—

Cp toward front of box.
Left hand lower pair—3.5 Mc.
Left hand upper pair—7.0 Mc.
Right hand upper pair—14.0 Mc.
Right hand lower pair—21.0 Mc.

Coil layout, viewed from front of receiver:—

Left to right—3.5, 7.0, 14.0, 21.0 Mc.

Note.—The gang capacitor will make screwdriver adjustment of Cp on 3.5 Mc. impossible. A cranked and flattened piece of 14 gauge copper wire can be used to adjust this trimmer.

Before closing box, mark all trimmer adjusting screws with indelible pencil to indicate maximum capacitance, when in line with an arrow on the box.

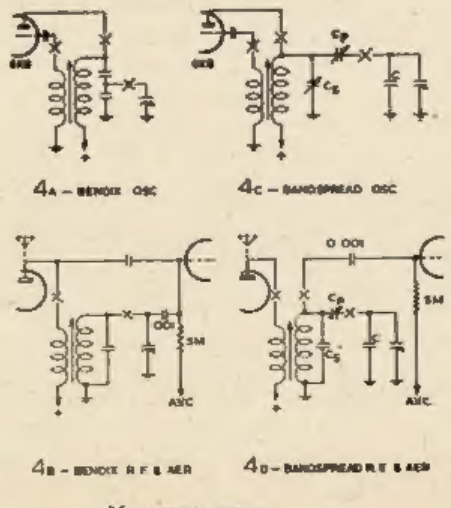


FIG. 4 – BANDSPREAD

R.F. SECTION

Electrical

Band (1) 3.5-3.8 Mc.

Coil: 2-5 Mc. coil unaltered.
Cs: 50 pF.
Cp: 75 pF. plus 25 trimmer (50%).

Band (2) 7.0-7.15 Mc.

Coil: 2-5 Mc. as follows—
Pri. unaltered, Sec. reduce to 16 turns.
Cs: 20 pF.
Cp: 50 pF. trimmer (50%).

Band (3) 14.0-14.35 Mc.

Coil: 5-10 Mc. unaltered.
Cs: 20 pF.
Cp: 10 pF. plus 25 pF. trimmer (50%).

Band (4) 21.0-21.45 Mc.

Coil: 200-400 Kc. former and slug, over which is fixed, at slug end, a Kingsley KCH3 oscillator coil, cut to length to fit, or on ¾" former—Pri. 4.25 turns interwound with the bottom of secondary (KCH3 with one turn added), Sec. 7.5 turns at 16 turns per inch.
Cs: nil.
Cp: 25 pF. trimmer (60%).

Mechanical

Coil layout as for oscillator. Remove 5 pF. top coupling capacitor. Connect 100 pF. across gang terminal and earth (C).

Viewed from front of receiver, trimmer layout is—

Left rear—3.5 Mc.
Left front—7.0 Mc.
Right front—14.0 Mc.
Right rear—21.0 Mc.

Add new switch wafer to accommodate gang capacitor switching.

MODEL "1XA" CRYSTAL MICROPHONE INSERT

AUSTRALIAN MADE — — FOR AUSTRALIAN CONDITIONS

FITTED WITH PLATED REAR SHIELD TO ELIMINATE HUM PICK-UP

- **Patented crystal unit guarantees outstanding efficiency and performance.**
- **Protected against ingress of moisture with approved moisture sealed crystal element.**
- **Small — compact — lightweight — durable.**
- **Will not blast from close speaking.**
- **Precision engineering ensures realistic reproduction and high output with long life and dependable operation.**
- **The only unit available with a genuine sintered metal filter.**
- **Good high frequency response ensures excellent speech reproduction.**
- **Aluminium diaphragm mechanically protected and frequency controlled by "Zephyrfil" filter.**
- **Australian made throughout.**
- **Only carefully selected cements used throughout, to suit Australian climatic conditions.**

TECHNICAL DETAILS

Rochelle salt crystal microphones are perhaps the most widely used for all types of service where quality speech and music reproduction at high output levels is a requirement. They are dependable in performance and when fitted with the appropriate "Zephyrfil" filter, their frequency response may be adjusted to suit any application or requirement.

This crystal microphone requires to be terminated with a high value parallel load of the order of 1 to 5 megohms for best results.

The mass of the moving parts is small, hence the sensitivity is high and a high efficiency is achieved.

Light gauge solder lugs are provided so that excessive heat in soldering will not be transmitted to the crystal element.

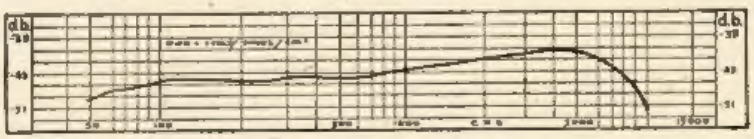
When mounted in a microphone cage, it is recommended that the insert be suspended in rubber, to eliminate shock and vibration.

One of the connecting lugs is directly connected to the case and care should be taken to solder the metal shield of the microphone cable to this solder lug, keeping the unscreened portion of the centre conductor as short as possible to eliminate hum pick-up.

All crystal elements are mounted on high grade suspension pillars being fixed thereto with a good quality cement, thus ensuring stability and long life.

Case 1¼" diameter (rear), ⅜" thickness, 1-13/16" overall diameter (front) with filter fitted.

Frequency Response = 60-6,500 c.p.s.
Output Level = —45 db (0 db = 1 volt/dyne/cm²)
Impedance = Model 1XA Grid 1 — 5 megohms.



Approximate Frequency Response Curve

AVAILABLE FROM ALL LEADING TRADE HOUSES

ZEPHYR PRODUCTS PTY. LTD. 118 WATTLETREE RD., ARMADALE, VICTORIA

AERIAL SECTION

Electrical

Band (1) 3.5-3.8 Mc.

Coil: 2-5 Mc. unaltered.
Cs: 100 pF.
Cp: 100 pF. plus 25 pF. trimmer (10%).

Band (2) 7.0-7.15 Mc.

Coil: 2-5 Mc. as under:—
Pri. unaltered, Sec. reduce to 16 turns.
Cs: 20 pF.
Cp: 50 pF. trimmer (50%).

Band (3) 14.0-14.35 Mc.

Coil: 5-10 Mc. coil unaltered.
Cs: 50 pF.
Cp: 10 pF. plus 25 pF. trimmer (60%).

Band (4) 21.0-21.45 Mc.

Coil: 200-400 Kc. coil former and slug over which is fixed, at slug end, Kingsley KCH3 oscillator coil unaltered, or on ½" former—Pri. 3.25 turns interwound with bottom of secondary, Sec. 7.5 turns at 16 turns per inch.
Cs: 20 pF.
Cp: 25 pF. trimmer (90%).

Mechanical

As for r.f. coils.

ALIGNMENT

Check that oscillator grid current is within limits for 6K8 on all bands. I found some adjustment necessary on 14 and 21 Mc. coils.

Using Class C Wavemeter, or accurate source of frequency, couple to aerial, preferably by co-axial cable terminated in 100 ohms or thereabouts. Aerial coil alignment is subject to detuning by the reactance seen by the aerial input.

Connect v.t.v.m. to a.v.c. line, or use S meter if installed, as alignment indicator.

Oscillator

Band (1)

(a) Set signal source to 3805 Kc. and align 3.5 Mc. osc. slug and Cs to receive signal with gang at **minimum**.

(b) Set signal source to 3495 Kc. and adjust Cp with gang at **maximum**.

(c) Repeat (a) and (b) progressively until no change of Cp is needed after a change in Cs or the slug. Make sure that you adjust **Cp only** at 3495 Kc., and **Cs** or **slug only** at 3805 Kc.

Check to see that no trimmer has reached maximum or minimum capacitance. If so, a change in the fixed capacitor in parallel, or alteration of the slug setting, is indicated.

Band (2)

As for (1) except adjust Cs or slug to 7155 Kc., Cp for 6995 Kc.

Band (3)

As for (1) except adjust Cs or slug to 14355 Kc., Cp for 13995 Kc.

The Class C Wavemeter second harmonic may be used.

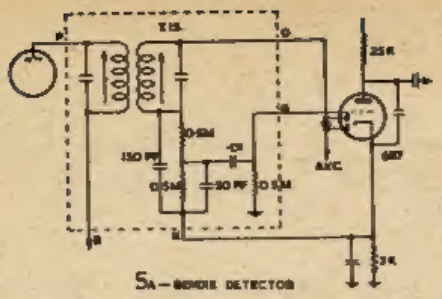
Band (4)

As above, except adjust Cs or slug to 21455 Kc., Cp to 20995 Kc.

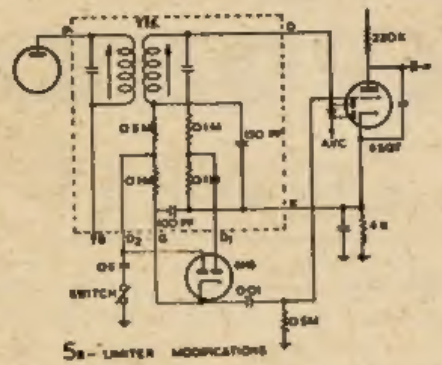
(Class C Wavemeter third harmonic.)

Aerial and R.F. Coils

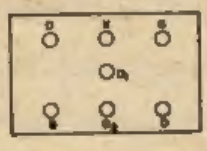
Using the same technique as in the oscillator, align the upper band edge with the **slug**, and the lower band edge with **Cs**.



5A—DIODE DETECTOR



5B—LIMITER MODIFICATIONS



5C - BOTTOM VIEW OF T15

FIG. 5 - NOISE LIMITER

Each will alter the setting of the other, but as alignment is approached the error becomes vanishingly small. Check that Cs in each case is not at maximum or minimum capacitance. If so, the capacitor in shunt will have to be altered.

After complete alignment, check that v.t.v.m. or S meter gives a substantially constant reading at several points in each band. There should be less than 5% variation in sensitivity over any band.

NOISE LIMITER

The noise limiter fitted is a series-shunt type described in "Wireless World" about 1950, using a double diode (6H6) and is very effective. The tube is mounted in the spare 6K6 socket (V8). The limiter circuit results in a 3 db loss in audio gain, and this has been made good by changing V5 (6R7) for a 6SQ7, with appropriate change in cathode resistor and plate load. It is doubtful if the change in tube is necessary, and most Amateurs would find there is adequate audio gain even with the 3 db loss mentioned. In my case the 6R7 was faulty, and the 6SQ7 a preferred Australian type.

Remove T15, the 3rd i.f. transformer. Inside the can is the filter assembly whose circuit is shown at Fig. 5a.

Modify the circuit as in Fig. 5b, bringing the leads D1 and D2 through new holes drilled as shown in Fig. 5c, and replace. Fit the silencer switch, and mount the 0.5 uF. capacitor where shown in Fig. 2 (C lim.).

To cut the limiter out of circuit, the switch is opened, and the audio by-pass capacitor becomes inoperative. The constants shown give limiting at about a 90% modulation level, and the drop in apparent level of speech, when the limiter is switched in, is just noticeable.

The 6SQ7 grid coupling capacitor and leak are wired between the sockets, when recovered from inside T15.

To replace R26 and R23, the 6R7 plate load and cathode resistor, with the new values shown in Fig. 5b, they are located as shown in Fig. 6b, showing part of the resistor strip on the audio end of the receiver. R23 from 3000 to 4000 ohms; R26 from 25,000 ohms to 0.25 meg.

S METER

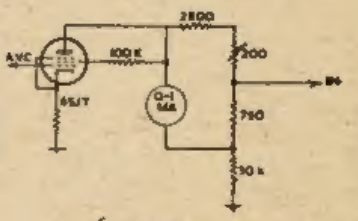
In order to avoid the necessity of switching out the meter, when the r.f. gain control is backed off, a separate S meter tube was installed. The socket is mounted under the rectangular cut-out for T17, which is not fitted. Any triode or pentode will serve, the constants shown being for a 6SJ7.

The circuit is shown in Fig. 6a. The meter zero set is mounted on the end apron toward the front, to clear the r.f. gain control, and is shown in Fig. 2. The resistors are mounted on the tag strip at this end, mentioned in reference to the noise limiter. This tag strip is shown in Fig. 6b, after modification.

The plate filter capacitors (6K6's) are removed to clear the end tags, and one wired across the working 6K6 socket. The earth wiring to the tags is rearranged to free those necessary for the S meter network.

Calibration of S Meter.—Calibration is somewhat open to question, but if each operator's estimate of S9 is made mid scale, the following calibration points will be fairly accurate.

Full Scale	Units
10%	S1
20%	S3
30%	S5
40%	S7
50%	S9
62%	10 db over S9
75%	20 db over S9
90%	30 db over S9.



6A - 'S' METER

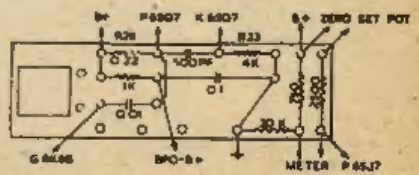


FIG. 6 - 'S' METER

Countryman's Double Conversion Receiver

BY G. LOVEDAY*

The Bendix RA-10-FA Receiver has many possibilities as a good receiver for those with home lighting plants. It can be fitted with the "QX", switched bandspread and a converter for all-band operation. But this rather adds up to a rather high battery drain, especially with 12 volt plants.

The author has solved the problem by another way; maybe it has its drawbacks according to those of higher radio knowledge, however for a shallow pocket it works f.b. and uses "junk box" parts.

Essentially it is the RA-10-FA circuit. The valves are 12 volt, but the 6.3 series can be used with no change. The first i.f. channel crystal oscillator is 4.6 Mc. (from Command receiver), the i.f. being 5.055 Mc.; the converter is a 12BE6.

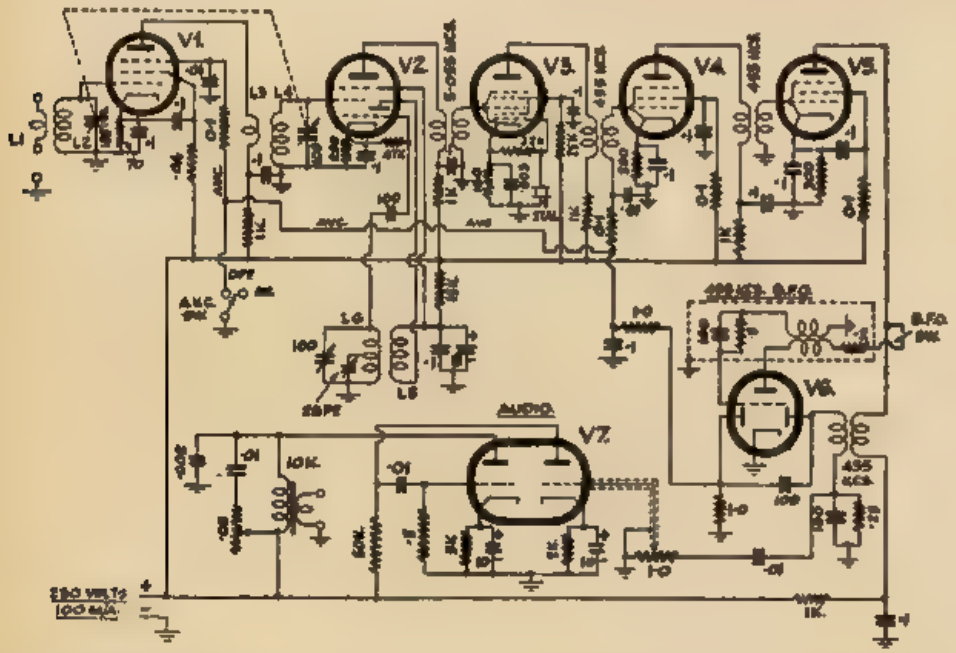
The second i.f. was changed to 455 Kc., two stages being retained. The selectivity is quite reasonable. Plug-in coils are used. The r.f. gain has not been used and it was found at the author's location that suppressor a.v.c. was better than the conventional set-up.

Many will recognise the b.f.o. idea, as is used in Command receivers and is quite a good way of cutting down drain. The b.f.o. note is altered by slight detuning.

Coils for 40 and 80 metres were wound on 1¼" diameter ribbed formers, likewise 20 metres. The 6, 10 and 15 metre coils were wound on the original formers of RA-10-FA, or could be wound on plastic formers of about ¾" diameter and mounted in appropriate sockets. The sockets should be of high quality, the writer using 4-pin, 5-pin and 6-pin Steatite for r.f., mixer and oscillator.

The first i.f. coils are wound on 7/16" diameter former (1600 Kc. i.f. stripped) and consists of approximately 30 turns of 24 B. and S. enamel. Coils are spaced by 7/16" and tuned by 100 pF. mica.

* "Wirra," Elimbah, Queensland.



V1—12AU6 or 6AU6 R.F.
V2—12K8, X76M, or X81M 1st Converter.
V3—12BE6 or 6BE6 2nd Converter.
V4—12SK7 or 6SK7 455 Kc. 1st I.F.
V5—12SK7 or 6SK7 455 Kc. 2nd I.F.
V6—12SR7 or 6R7 B.F.O., Det., A.V.C.
V7—12AU7 or 6SN7 Audio.

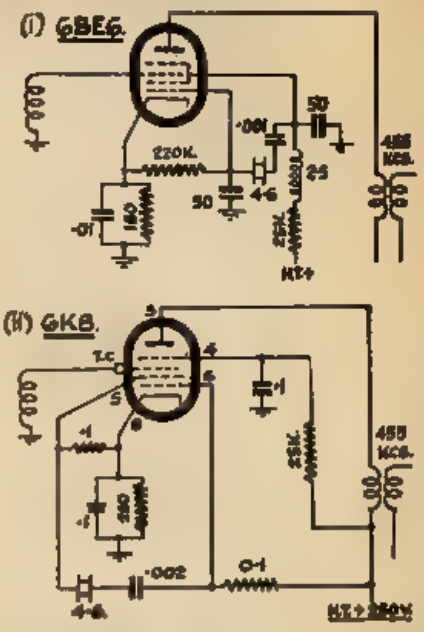
DETAILS OF COILS

Band	Coil Diam.	L1 Turns	L2 Turns	L2 Length	L3 Turns	L4 Turns	L4 Length	L5 Turns	L6 Turns	L6 Length	Tap
80	1¼"	10	40	c.w.	14	40	c.w.	5	13½	1¼"	10
40	1¼"	8	23	1¼"	6	23	1¼"	4½	9	1¼"	2½
20	1¼"	5	12	1¼"	6	12	1¼"	3½	5½	1¼"	3
15	¾"	*5	10	¾"	5	10	¾"	4	8	¾"	†
10	¾"	4	6	¾"	4	6	¾"	3½	4½	¾"	†

All Primaries 30 S.W.G. enamel, Secondaries 21 B. & S. enamel, unless specified.

* This Primary is wound with 21 B. & S. enamel.
† Some experiment will be necessary to get the best tapping position, also the spacing of turns.

The second converter oscillator may appear unorthodox, however in the writer's case it works quite OK. Alternatively the following ideas could be tried if the above fails to oscillate.



The bandset oscillator is tuned by 2½ : 1 friction drive, and the bandspread by a 10 : 1 mechanism.

HINTS AND KINKS

SOLDERING MINIATURE COMPONENTS

With the trend these days towards miniaturisation of electronic equipment, a new technique becomes desirable when handling the midget components. Because of their small size, such components, e.g. crystal diodes, the new Hi-K ceramic condensers, one-third and one-half watt resistors, etc., heat passed on, when soldering, and concentrated in a very small area rather than over the area of a larger component, can wreck havoc.

What to do? Use a small pointed soldering iron and grasp the lead on the component side of the point of soldering with a pair of long nose pliers to conduct the heat away. If the jaws of the pliers are cut back and replaced with copper jaws brazed on, a much better (faster) heat conductivity will result.

Sometimes, a small piece of damp cloth can serve a similar purpose when it is necessary to hold a component in one's fingers during soldering operations, protecting both the component and the fingers!—VK3YS.

ACCURATE FREQUENCY TRANSMISSION RESULTS

Following is the result of the Accurate Frequency Transmissions from VK3WI on 19th November, 1953:—

7000 Kc.	....	34	cycles low
7010 "	....	25	" "
7030 "	....	14	" "
7050 "	....	5	" "
7070 "		18	" "
7090 "		15	" "
7110 "	....	20	" "
7130 "	....	36	" "
7150 "	....	13	" "

NATIONAL FIELD DAY, 1954

RULES

1. The National Field Day Contest of the Wireless Institute of Australia will be held on **Sunday, 14th February, 1954.** The Contest will be of 12 hours' duration, commencing at 0900 hours E.A.S.T. and will continue until 2100 hours E.A.S.T.

2. The Contest is limited to portable stations operating within the Commonwealth and its Mandated Territories on a power not exceeding 25 watts input to the final stage with the aerial connected, with a special section for fixed stations working to portable stations, and a special multiplier which, it is hoped, will encourage the use of low power equipment.

3. A portable station for the purpose of the Contest is defined as one whose power is not derived from either private or public mains, shall not be located closer than five miles airline from the home of the operator/s and shall not be situated in any occupied dwelling or building.

4. No apparatus is to be set up or erected on the site of the portable station earlier than 24 hours prior to the commencement of the Contest. A station may be moved from one site within a State to another within the same State during the Contest.

5. More than one operator may be used in the operation of the portable station, provided that all operators are licensed Amateurs.

6. Operation may be on any of the recognised Amateur bands, and more than one transmitter may be used, providing that only one transmitter is used at any one time.

7. When calling, c.w. stations will use the call "CQ NFD," and phone stations will use the call "CQ National Field Day" to indicate that they are portable stations. Attention is directed to the requirements for portable operation as defined in the P.M.G. Handbook for the Guidance of Amateur Operators.

8. **Sections**: The Contest is divided into four sections, namely:—

(a) Open,
(b) C.w.,
(c) Phone,
(d) Fixed Station.

The open section will consist of phone and c.w. Portable station participants may enter each of sections (a), (b), and (c), provided a separate log is entered in each case.

9. Logs must be forwarded to the Contest Committee **through the Division** in time to reach Box 1734, G.P.O., Sydney, not later than 12th March, 1954.

10. Logs must be filled in in the following order: Date, Time (E.A.S.T.), Band, Emission, Power Input to the final stage with the aerial connected, Call Sign of the station contacted, RST number sent, RST number received, location of station contacted, points claimed. The log must be headed with the title of the Contest, section entered, call sign of the competitor, location of the station. At the conclusion of the log a summary of contacts must be shown together with a description of the equipment used, including h.t. voltage to the final stage, tube/s in p.a. stage, antenna used, and call signs of all operators.

11. The completed log must be signed by each of the operators with a statement that the P.M.G. Regulations and the rules of the Contest have been observed.

12. The decisions of the Federal Contest Committee will be final in all matters concerning the Contest.

13. Failure to completely observe the conditions of rule 10 will lead to automatic disqualification of a competitor.

14. **Scoring**: For the purpose of the Field Day the following constitute VK Districts: VK2, VK3, VK4, VK5 (South Australia), VK5 (Northern Territory), VK6, VK9.

15. Serial numbers must be exchanged during the Contest. Failure to record current serial numbers will mean loss of all points for that contact. Serial numbers will be as follows: The first three figures will be the RST report in the c.w. section, followed by the serial number of the contact. Serial numbers may commence with any number between 001 and 100 for the first contact, increasing by one for each successive contact. In the phone section the first two figures will be the RS as in the c.w. section, followed by the three serial numbers. In addition, the QTH must be given in all cases.

16. Points will be awarded as follows:

Portable Stations—

(a) For contacts with a fixed station within the Commonwealth (Rule 14) including the competitor's own State . . . . . **1 point**
(b) For contacts with other portable stations within the same State . . . . . **2 points**
(c) For contacts with stations in Asia, Oceania, North America, **3 points**
(d) For contacts with stations in other countries other than (a), (b) and (c) . . . . . **5 points**
(e) For contacts with other portable stations outside the competitor's own State . . . . . **10 points**

In order to encourage QRP operation, for portable stations the total number of points scored will be divided by the power input in watts (with the aerial connected).

If more than one transmitter and/or input power is used for portable contest purposes, the "power in watts" will be calculated as the average.

Fixed Stations—

(f) For contacts with portable stations in the Contest within the same State . . . . . **2 points**
(g) For contacts with portable stations in the Contest outside the State . . . . . **5 points**

17. **Awards**: An attractive certificate will be forwarded to the outright winners in each section, namely, Open, Phone, C.w. Certificates will also be awarded to the winners of each section in each State, and to the fixed station in each State with the greatest number of points gained in contacting portable stations in the Contest. Further certificates may be awarded at the discretion of the Federal Contest Committee. The outright winners are not eligible for State Awards.

18. Certificates will be awarded to each operator of the winning stations, provided each operator has contacted at least 25 per cent. of the stations contacted.

PRINCIPAL CHARACTERISTICS OF THE QQV03-20*

HEATER	Series	Parallel
Vh	12.6	6.3V
Ih	0.48	1.2A

CAPACITANCES

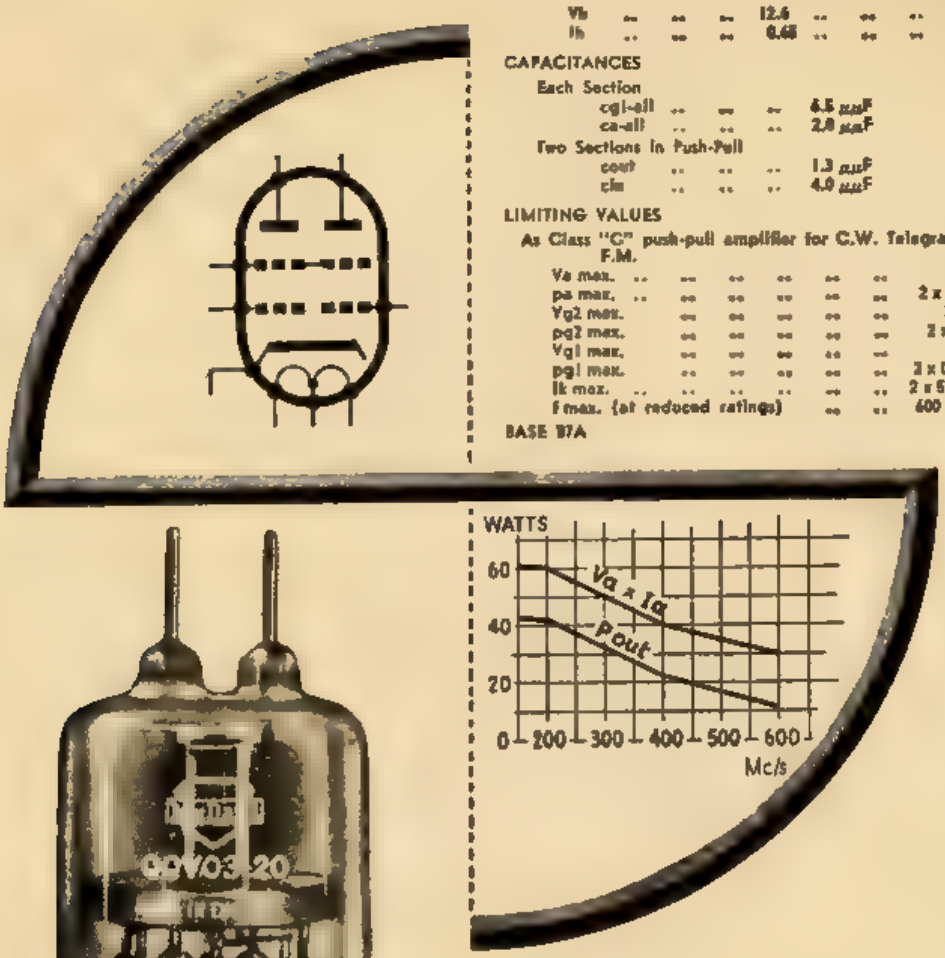
Each Section	
cg1-all	6.5 μμF
ca-all	2.8 μμF
Two Sections in Push-Pull	
cout	1.3 μμF
cin	4.0 μμF

LIMITING VALUES

As Class "C" push-pull amplifier for C.W. Telegraphy or for F.M.

Va max.	600 V
pa max.	2 x 10 W
Vg2 max.	250 V
pg2 max.	2 x 2 W
Vg1 max.	-75 V
pg1 max.	2 x 0.5 W
Ik max.	2 x 55 mA
f max. (at reduced ratings)	600 Mc/s

BASE B7A



*CV2799

A high performance Double Tetrode for the new U.H.F. wave-band allocations

Providing 15 watts output at 500 Mc/s, and with an effective upper frequency limit of 600 Mc/s, this new Mullard double tetrode, the QQV03-20, is an ideal valve for communications equipment designed to operate in the new U.H.F. wave-band allocations.

As a result of new and important design features, this valve has the outstanding advantages of high anode efficiency, excellent power gain, low filament consumption and small physical dimensions. In addition, being of conventional all glass technique, the QQV03-20 does not require the complex and expensive circuitry that is normally associated with the disc-seal type of U.H.F. valves.

This double tetrode has special advantages in compact communications equipment, where, due to its small size and low filament consumption, it enables maximum savings in space to be made.

Brief technical details of the QQV03-20 are given above. More comprehensive information will be gladly supplied on request.

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MR7-53

DX COUNTRIES OF THE WORLD

The list of Countries as hereunder, and as amended from time to time in Federal Notes, is the Official List to be used in connection with the issue of the Australian DX C.C. Award.

The list below shows first the Country, the Zone number in parenthesis (as used by the "CQ" W.A.Z. Award) and the Amateur Prefix.

Aden & Socotra Is. (21) VS9
Afghanistan (21) YA
Alaska (1) KL7
Albania (15) ZA
Aldabra Islands (39)
Algeria (33) FA
Andaman & Nicobar Is. (26) VU5
Andorra (14) PX, 7B4
Anglo-Egypt. Sudan (34) ST
Angola (36) CR6
Argentina (13) LU
Ascension Island (36) ZD8
Australia (inc. Tas.) (29, 30) VK
Austria (15) (MB9) OE
Azores Islands (14) CT2

Bahama Islands (8) VP7
Bahrein Island (21) MP4B
Baker, Howeland & Am. Phoenix Is. (31) KB6
Balearic Islands (14) EA6
Barbados (8) VP6
Basutoland (38) ZS8
Bechuanaland (38) ZS9
Belgian Congo (36) OQ5
Belgium (14) ON
Bermuda Islands (5) VP9
Bhutan (22)
Bolovia (10) CP
Bonin & Volcano Is. (Iwo Jima) (27) JA0
Borneo, Brit. Nth. (28) ZC5
Borneo, Netherl'ds (28) PK5
Brazil (11) PY
Brunei (28) VS5
Bulgaria (20) (9B3) LZ
Burma (26) XZ

Cameroons, French (36) FE
Canada (2, 3, 4, 5) VE, VO
Canal Zone (7) KZ5
Canary Islands (33) EA8
Cape Verde Is. (35) CR4
Caroline Islands (27) KC6
Cayman Islands (8) VP5
Celebes & Molucca Is. (28) PK6
Ceylon (22) 4S7, VS7
Chagos Islands (39) VQ8
Channel Islands (14) GC
Chile (12) CE
China (23, 24) C
Christmas Is. (29) ZC3
Clipperton Is. (7) FO7
Cocos Island (7) TI9
Cocos Islands (29) VK1, ZC2
Colombia (9) HK
Comoro Islands (39) FB8
Cook Islands (32) ZK1
Corsica (15) FC
Costa Rica (7) TI
Crete (20) SV
Cuba (8) CM, CO
Cyprus (20) (MD7) ZC4
Czechoslovakia (15) OK

Denmark (14) OZ
Dodecanese Is. (Rhodes) (20) SV5
Dominican Republic (8) HI

Easter Island (12) CE0
Ecuador (10) HC
Egypt (34) (MD5) SU
Eire (Irish Free State) EI
England (14) G
Eritrea & Ethiopia (37) ET
Faeroes, The (14) OY
Falkland Islands (13) VP8
Fanning Is., Washington Is., Christmas Is. (31) VR3
Fiji Islands (32) VR2
Finland (15) OH
Formosa (24) C3
France (14) F
French Equa Africa (36) FQ
French Indo-China (26) FI
French Oceania (Tahiti) FO
French West Africa (35) FF
Fridtjof Nansen Land (Franz Josef Land) (40) UA1

Galapagos Is. (10) (HC8)
Gambia (35) ZD3
Germany (14, 15) DJ, DL, DM
Gibraltar (14) ZB2
Gilbert, Ellice & Ocean Is. (31) VR1
Goa (Portu. India) (22) CR8
Gold Coast (and British Togoland) (35) ZD4
Greece (20) SV
Greenland (40) OX
Guadeloupe (8) FG
Guantanamo Bay (8) KG4
Guatemala (7) TG
Guiana, British (9) VP3
Guiana, French, and Inini (9) FY
Guiana, Netherlands (Surinam) (9) PZ
Guinea, Portugese (35) CR5
Guinea, Spanish (35) LA0

Haiti (8) HH
Hawaiian Islands (31) KH6
Heard Island (39) VK1
Honduras (7) HR
Honduras, British (7) VP1
Hong Kong (24) VS6
Hungary (15) HA

Iceland (40) TF
Ifni (33) EA9
India (22) VU
Iran (21) EP, EQ
Iraq (21) (MD6) YI
Ireland, Northern (14) GI
Isle of Man (14) GD
Israel (20) 4X4
Italy (15) I

Jamaica (8) VP5
Jan Mayen Island (40) LA, LB
Japan (25) KA, JA
Jarvis and Palmyra Is. (31) KP6
Java (28) PK
Johnston Island (31) KJ6

Kenya (37) VQ4
Kerguelon Is. (39) FB8
Korea (25) HL
Kuwait (21) (VT1) MP4K

Laccadive Is. (22) VU4
Lebanon (20) OD5, AR8
Leeward Is. (8) VP2
Liberia (35) EL
Libya (34) 5A2 (MC1, MD1, MD2, MT2)
Liechtenstein (14) HE1
Luxembourg (14) LX
Macau (24) CR9
Macquarie Is. (30) VK1
Madagascar (39) FB
Madeira Islands (33) CT3
Malaya (28) VS2
Maldive Islands (22) VS9
Malta (15) ZB1
Manchuria (24) C9
Marianas Is. (Guam) (27) KG6
Marion Is. (and Prince Edward Is.) (38) ZS2
Marshall Islands (31) KX6
Martinique (8) FM
Mauritius (39) VQ8
Mexico (6) XE, XF
Midway Island (31) KM6
Miquelon and St. Pierre Is. (5) FP
Monaco (14) 3A2
Mongolian Rep. (Outer) (23) (JT)
Morocco, French (33) CN8
Morocco, Spanish (33) EA9
Mozambique (37) CR7

Nepal (22) NE1, VU7
Netherlands (14) PA, PI
Netherlands West Indies (9) PJ
New Caledonia (32) FK
New Guinea, Nether. (28) PK7, JZ
New Guinea, Territory of (28) VK9
New Hebrides (32) FU, YJ
New Zealand (32) ZL
Nicaragua (7) YN
Nigeria (35, 36) ZD2
Niue (32) ZK2
Norfolk Island (32) VK9
Norway (14) LA, LB
Nyasaland (37) ZD6

Oman, Sultanate (21) VS9
Oman, Trucial (21) VS9, MP4H

Pakistan (22) AP
Palau (Pelew) Is. (27) KC6
Palestine (20) ZC6, ZC8
Panama (7) HP
Papua Territory (28) VK9
Paraguay (11) ZP
Peru (10) OA
Philippine Islands (27) DU
Pitcairn Island (32) VR6
Poland (15) SP
Portugal (14) CT1
Principe and Sao Thome Is. (36) CR5
Puerto Rico (8) KP4

Qatar (21) MP4Q

Reunion Island (39) FR7
Rhodesia, Northern (36) VQ2
Rhodesia, Southern (38) ZE
Rio de Oro (33) EA9
Rumania (20) YO
Ryukyu Is. (Okinawa) (25) KR6

Saarland (15) 9S4
St. Helena (36) ZD7
St. Paul & New Amsterdam Is. (39) FB8
Salvador (7) YS
Samoa, American (32) KS6
Samoa, Western (32) ZM
San Marino (15) (M1)
Sarawak (28) VS4
Sardinia (15) IS
Saudi Arabia (Hebjaz & Nejd) (21) HZ
Scotland (14) GM
Seychelles (39) VQ9
Siam (26) HS
Sierre Leone (35) ZD1
Sikkim (22) AC3
Singapore (28) VS1
Solomon Is. (28) VR4
Somaliland, Brit. (37) VQ6
Somaliland, French (37) FL
Somaliland, Italian (37) MD4, I5
South Georgia (13) VP8
South Orkney Is. (13) VP8
South Sandwich Is. (13) VP8
South Shetland Is. (13) VP8
Southwest Africa (38) ZS3
Soviet Union.
Europ R.S.F.S.R. (15, (16, 17) UA1, 2, 3, 4, 6
Asiatic R.S.F.S.R. (17, 18, 19, 25) UA9, 0
Ukraine (16) UB5
Belorus'n S.S.R. (16) UC2
Azerbaijan (21) UD6
Georgia (21) UF6
Armenia (21) UG6
Turkoman (17) UH8
Uzbek (17) UI8
Tadzhik (17) UJ8
Kazakh (17) UL7
Kirghiz (17) UM8
Karelo-Finnish Republic (16) UN1
Moldavia (16) UO5
Lithuania (15) UP2
Latvia (15) UQ2
Estonia (15) UR2
Spain (14) EA
Sumatra (28) PK4
Svalbard (Spitzbergen) (40) LA, LB
Swan Island (7) KS4
Swaziland (38) ZS7
Sweden (14) SL, SM
Switzerland (14) HB
Syria (20) YK

Tanganyika Ter. (37) VQ3
Tangier Zone (33) EK, KT1, CN2
Tannu Tuva Rep. (23) UA0
Tibet (23) AC4
Timor. Portuguese (28) CR10
Togoland, French (35) FD
Tokelau (Union) Is. (31)
Tonga (Friendly) Island (32) VR5
Transjordan (20) ZC1, JY
Trieste (15) AG2, MF2
Trinidad & Tobaga (9) VP4
Tristan da Cunha and Gough Is. (38) ZD9
Tunisia (33) (FT) 3V8
Turkey (20) TA
Turks & Caicos Is. (8) VP5

Uganda (37) VQ5
Union of S. Africa (38) ZS
United States of America (3, 4, 5) WN, K, W
Uruguay (13) CX

Vatican City State (15) HV
Venezuela (9) YV
Virgin Islands (8) KV4

Wake Island (31) KW6
Wales (14) GW
Wallis Island (32) FW8
Windward Is. (8, 9) VP2
Wrangel Island (19)

Yemen (21) (4W)
Yugoslavia (15) YT, YU

Zanzibar (37) VQ1

FIFTY MEGACYCLES AND ABOVE

VICTORIAN V.H.F. GROUP

The November v.h.f. meeting was a great success, about 30 being present. The major portion of the time was devoted to a display of v.h.f. gear, which proved to be of interest to all, and of special interest to existing and aspiring Limited Class Licencees. Among the items shown were low power tx's, converters, complete 2 mx mobile stations, grid dip osc's., antennascope, QQE06/40 p.a., etc. 3JO called on each owner to give a brief description of his contribution. A mobile demonstration was given by 3LN, progress being followed with 3JO's modified ZB2 converter

Referring to v.h.f. field days, it was agreed to make the first one for 1954 to coincide with the National Field Day on Sunday, 14th Feb.

The November C.D.E.N triangulation test went off well, 3ACH operating as control station. The six locations from which 3LN, as target station, made five-minute transmissions were as follows: 1, Port Melbourne West, 2, Elsternwick, 3, Hawthorn East; 4, Surrey Hills, 5 Jolimont Station, 6, Maribyrnong. The next one is on 13th January. The first mobile fox hunt is to be on 10th February, so please make an effort to get a 2 mx mobile station ready by then.

Recent 2 mx newcomers to the Melbourne area are ex-2OK and ex-2ABB, welcome chaps. 3DG at Lancefield is now set up to work two-way on the 2 mx band.

6 mx openings have been quite frequent during the latter part of November with the sporadic E season getting into full swing. All States and ZL have participated in openings since about 15th Nov., and on 28th VK9DB broke through and gave many a good contact. He operates on 50.2 Mc. and calls and listens each evening on the hour and half hour. Country stations including 3CI, 3ZL, 3UI, 3ATN, 3APF have been doing well. 3CI got two from the west—6BO and 6HK. We understand that 4LK and 4JW in northern Queensland are keeping a watch for 50 Mc. sigs.

From "QST" we learn that the 420 Mc. record has been pushed up further to 410 miles between W1RFU and W4TLM during last July.

Six mx mobiles at Benalla during the State Convention were 3HK, 3APF, and 3UI. 3LN took his 2 mx mobile.—3ABA

SOUTH AUSTRALIA

The main activity for Nov appears to be on 6 mx and this band has blossomed forth quite early this year to provide openings from VK5 to all States and ZL. Some openings have the appearance of sporadic E propagation, whilst some from VK5 to VK6 have confirmed predictions obtained from the most unusual series of weather maps that I have come across, for super refraction. Cold fronts following in regular procession across Southern Australia 24 to 48 hours apart. Clem 5GL tried 2 mx to VK6 without success, but 6 mx has been open consistently

Ron 5MK in his ideal location has had quite a feast and has been good enough to give me a copy of his log which makes 6 mx transmission look like local contacts! VK4s seem to be the most consistent stations with VK3s running them close, and last night Albert 5ZL lived up to his call sign and exchanged reports with ZL1 and ZL2 with his brother Ron 5MK a close second. No signs of VK3 as yet, but the VK4s have been heard working them. An unbroken 21st to 26th inclusive shows just what to expect of 6 mx this coming summer.

Remember chaps that we haven't yet been through a sunspot minimum on this band and anyone who can spare the time to let me have copies of his loggings and times for co-ordination and analysis will be doing us all and the prediction service a good turn.

A new official call of 5ON from Charlie should be amongst the v.h.f. signals from now on—good hunting OM, you've got what it takes to make a first-rate Amateur. Keith 5MT amidst the 6 mx signals again. My eave's dropping on 40 mx gave me Harry 5KW as a starter from Berri, but no other news; guess Hughie and the gang will not be far behind. Brian 5CA, Ken 5BC working into VK2, while Hughie 5BC not hearing much at all, then 5BC working 6LC at Kalgoorlie at 1900 59.

A good sign to look for is 21 Mc short skip. Oh, my, how we miss the old 33 Mc. beacons!

By the time you read this, the New Year will be with us, so I bid you all good hunting for 1954.

VK7WI TO OPERATE AT SCIENCE EXHIBITION

As part of the Tasmanian Sesqui-Centenary Celebrations, Science Exhibition is being held in the City Hall, Hobart, opening on 7th January and closing on 17th January, 1954.

Station VK7WI will be operating from the hall during the Exhibition and will be looking for contacts with other Amateur stations both inside and outside Australia.

Operating bands will be 80, 40 and 20 metres, and operating times between 10 a.m. and 10 p.m. every day the Exhibition is open.

As the public will be listening, stations contacted are asked to keep the conversation along everyday lines and avoid as much as possible technical terms.

Because of the high noise level at the hall, the receiver will be in a quiet location several miles away and will be remotely tuned by the operator in the hall. Stations calling VK7WI are therefore asked to give long calls so that the operator will have time to tune the band.

A special QSL card for the occasion is being printed and will be sent to all stations worked, and visiting Amateurs will be very welcome.

If you are in Hobart during the Exhibition we will be very pleased to see you.

DX ACTIVITY BY VK3AHH*

DX HIGHLIGHTS

DL4QX intends to represent **Crete** on all bands early in 1954 (thanks BERS 195).

Nicobar Islands show some activity in **VU5AB** on 14 Mc. phone.

BAND CONDITIONS

3.5 Mc.: Openings to North and Central America, the Pacific Islands, and Far East occurred between 0900z and 1300z. Neville 2APL heard KP4PL and Ws, and 3AHH lists Ws, JA1CR, KH6PL.

7 Mc.: Break-throughs to Africa around 1800-1900z were reported. Long-path conditions to Europe deteriorated while the continent was often workable over the short route (1900-2200z). The period for openings to the American Continents, Far East, and Pacific Islands was 0700-1500z.

Considering W contacts commonplace, this month's reports are. 2QL has now moved to another QTH. Frank worked, still using low power CE3AG* and KL7*. Laurie 2AMB keyed with KX6BF*, TI2PP*, 4X4DF*, VK9WZ*, while Ted 5DF managed QSOs with FR7ZA* (1610z), VQ4AQ* and on phone VS2UW*. Up in the North, Alan 5YY QSOed JZ0KF*, VS1FE*, JA3AA*, DU7SV* and KL7*. Eric BERS186 heard KZ5CR, SU1SS, 5A3CJ, DU1DO, HR1AA, FA9LW, VQ4AQ, FA8IH, 4X4BN, ZB1TS, CN2AP, ZS7D, CT3AB, ZC4RX, OQ5GU, plus a long list of Europeans. Dave Jenkin's t.r.f. brought forward 4X4DF, PA0UV, FU8CR plus Europeans.

14 Mc.: All reports mention a general deterioration of conditions. Erratic break-throughs to Africa occurred around 0300-0800z and between 1100z and 2100z. European and Middle East conditions via the long path were almost non-existent. The band opened, however, more or less regularly to those areas over the short route (1100-1400z). The American Continents could be contacted at odd times with weak to fair signal strengths.

Regarding Europe, Pacific Islands and W-land as usually workable areas, this month's c.w. activity is displayed by: the Macquarie Island station (ops. VKs 1AF, 1BA and 1RL) with KV4s*, FK8*, JAs*, JZ0KF*, Noel 2AHH reports AP2R*, VP9BF*, YI2AM*, 4S7XG*, FI8AR*, YK1AH*, YO3RZ*, ZSs* 2AMB worked CR9AH* and Alan 3CX appears with a long list of ZSs* VP8UN*, HR1AA*, JZ0KF*, CE3RE*, TI2TG* ZK2AA* ZK1AB*, KV4*, FA8IH*, KA0IJ*, HH2FL* Ken 5KR contacted YI2AM*, KA0IJ*, YK1AH*, KP4KD*, ST2AR*, ST2HK* (2045z), VSs*, VU2s*, KR6*, JAs* Gordon 3XU QSOed AP2R*, ZK1AB*, KV4*, LU8FBH* VS*, VU2*, XZ2OM* and Bob 4RW worked LU3FBS* VU5AB* 4S7*, KL7* while Erg 5KU lists ZK1AB* LX1AS*, 4S7LB*, JZ0KF*, CX5CO*, XW8AA*, SU1SJ*, LU3EX*, LU3ZM*, LU8FBH* LU8AF*, HH2FL*, YV5AO*, KR6*, VU2*, EA8FB. MP4BBD, AP2K, HS1CA. Ray 5RK logged CR9AH* KA0IJ* JZ0KF*, ZC4IP*, KW6BB* and Austin 5WO adds LU5AQ*, KV4*, VSs*, ZC4IP*, and F7SHP* via the long path 0945z. Geoff 9GW managed XW8AA*, and 9YY keyed with LB8BD, ZC3*, HS3CA* SV0WC*, VQ2AB*, VQ2GW*, AP2R*, ZSs* PY5UG* Our s.w.l's. heard: BERS195 ST2HK YO4CR OD5XX, CE3QW, YI2AM, HK1TH HR1AT CR9AH, YV5AO, KA0IJ, CE3AG OD5LX, Dave Jenkin C3PM, HR1AT, ZSs, LU5AQL, GI4RY (0905z), KV4. KJ6BA. 3AHH logged LU5AQ*, HH2FL*, JZ0KF*, VU2*, KV4*, ZC3AA, TA3US, CO7AH.

The band's upper 200 Kc. brought forward at 1AF (1BA, 1RL) PY5DF*, VP9BF*, YV5AB*, LU4DD* CE3AB* VSs* and 2AHH lists HS1WR*, OA6P*, HZ1SD* IT1AFS* MP4BBL*, LU6QB* KR6* 4S7s* VU2* Rex 3UR reports CE1BE* KA0IJ* IT1AFS*, XZ2KN*, LU9AF* and Ken 3WM spoke to MP4BBL* MP4KAC*, XZ2KN* HS1WR*, VSs* The next in line is John 3AKO with VR4AE*, LU1AAT*, VSs* Here comes 3ATN, the man with stacked vee-beams. Ray demonstrates their excellent performance with AP2A*, ZD4BE*, OQ0DZ*, CR6AJ* VS9GV* FF8AP* KV4* KP4*, PY*, CE*, M1B* HC* LU*, ZS* XZ*, HS*, YV*, MP4* VP8*, CN8* HK*, etc Bob 4RW worked ZM6AA* VR4AE* VU5AB*, KJ6AJ* Aussie 4TN mentions OQ0DZ*, ZC5VR*, LUs*, 4X4BO*, 4X4DK*, CE3AB*, VU5AB* John 5HI reports HS1WR* ZSs*, VSs* MP4BBL, MP4KAC, 5A2TZ, HZ1AB; while John 5JW adds 3V8AS* and AP2R*. 5KU logged ZSs*, CN8MN*, ZM6AA* XZ2KN, CR9AH 5XN found in early mornings VQ3AJB*, VQ4NZK*, VQ4AC*, OQ5KL*, VQ5EK*, ET2SM*, YI2AM* Clarry 6LL spoke to MP4BBL*, 4S7*, VSs*, VU2*; and Doug. 7DZ managed MP4QAH* MP4BBL*, CR9AH*, 4S7* S.w.l. reports at hand are from Norman Clarke VQ4NZK, LU6BF, ZSs; and Albert Ebenreuter (of Box Hill, Vic.) VP4LL, VP3YG VR3C, LU5AR, PY5CK, KC6AA.

21 Mc. Conditions on this band were also relatively poor. However, several erratic openings to the American Continents (2100-0300z), Africa (0500-0700z), and Europe (0900-1200z) were reported.

Howard 2AMB worked KZ5WZ*, GM3DHD*, HP3FL*, VQ4EH*, VR2*, KJ6*, VQ4GM*, VSIs*, TI2RC* KH6* W6*, and Sid 3CX logged HC1FS* KH6* JA* G* TI3LA* HP3FL*, VS1* KJ6* W5*, W6* W8* 3WM adds GM3DHD* KZ5ST*, ZC4RX* DU7SV*, LX1SI*, VSs* VU2* while Arthur 4FE mentions ET2US* ZM6AA* OQ5GU* 4S7* VQ4FRR* W5*, W9* JA* FK8* and VS1* 4TN spoke to Gs* W5* W6* W0* HC1FS*, HR1AA*, LA*, GM3DHD DL* KH6* VU2* HP3FL* YI3WH* and heard ZB1BU CN8CS VQ4EH CT1FI 9QW reports YI3WH*, DLs*, KH6*, Ws*, VSs*, I*, VU2* HC1MS*, Gs*, Fs*, HC1FS*, KAs* Dave Jenkin heard 4X4RE, 4S7, Gs, DL, OH, PA0, Ws, DU7SV Here at 3AHH listings are JZ0KF*, FU8AA*, FO8AB. etc.

28 Mc. Sporadic openings are reported from VK4 and VK9 to W-land, Pacific Islands and Far East.

Les 4XP worked W8ORD*, W6VAD*, KH6s*, JA1CR*, and MM stations Ws 5MET*, 1WD1*, 4VYU*, JO2A* 9GW heard W5s and W6s.

GENERAL NEWS

When these notes have reached you, this year's relief of expedition parties on Macquarie and Heard Islands will be in progress. We say "welcome home" to Hams returning after a year's service, while our best wishes are extended to those who are on their way to both Islands and to the Australian Sector of the Antarctic Continent. Bill Storer well known as VK1BS and VK2EG, will use VK1EG, while a member of this first Australian Expedition to the Continent. Heard Island will be represented by John VK1PG (ex-VK1PG in 1950) and George Delahoy, VK1DY (ex-VK3ADZ and VK5DY). Alan C. Hawker, VK1AC (ex-VK3IB 2ACI), will keep Macquarie Island on the map. Good luck, chaps, and we hope to QSO you often!

GC3GS is looking for VK/ZL on 7080 Kc (phone) around 0815z (thanks 2ALL). Operators of KA0IJ will shortly be relieved (thanks 3KR). HS1WR and HS3CA are at present active in Siam. ZK2AA and ZK2AB have now left Niue Island (thanks BERS195). FB8ZZ was heard several times (thanks 3YS). OY2Z has been active on 14060 Kc. (thanks W6ALQ). ST2UU is ex-FB8UU, VQ7UU, and VQ8UU. KC6AC is on Truk Island. He is mainly on 7 Mc. CR6AI is active on 14 Mc. (around 1700z). EA2CN intends to work from Rio de Oro some time. AC4NC has been active on 14 Mc. phone. G2RO expects to make a trip to Guiana, the West Indies, and Falkland Islands at a later date.

QTHs of interest —
HS1WR—C/o. U.N.O., Bangkok, Siam.
FI8AC—Via F8MT.
FI8AE—Box 527, Saigon, French Indochina.
ZC4 QSL Bureau—ZC4IP, Box 219, Limassol, Cyprus.
YK1AH—Box 35, Damascus, Syria.
AP2R—Box 2111, Karachi, Pakistan.
KR6IN—M. Sgt. William H. Payton, AF8393618, Det. 2, 1962d, A.A.C.S., Sq., Box 2, A.P.O. 239, C/o. Postmaster San Francisco, Calif.

QSLs reached 2ABH KC6AA, KZ5SW, LA8F, OA4V VR3C, YN4CB, CT1FT, 2AMB ZM6AA, SP3PL 5HI FI8AC, VK1HM, HC1LO, CO2OZ, KA8GC, KR6IN, 5JW XW8AA 5KU; LU8FBH, DU7SV HR1AA, XZ2OM, PA0ZL, TF6TP, CT1JS BERS185 W0MCF/C3, VK9WZ, ZS6R, SM7BQH (3.5 Mc., 3AHH TI2TG, KH6IN

This month's thanks are due to VKs 1AF, 1BA, 1RL, 2QL 2AHH 2AMB, 2AMD 2APL, 3CI, 3CX, 3KR 3UR, 3WM, 3XU 3AKO, 3ATN, 4FE, 4RW, 4TN, 4XJ, 5DP, 5HI 5JW, 5KU, 5RK, 5WO 5XN, 6LL, 7DZ, 9GW, 9YY, and s.w.l.s. BERS195 (VK3), Norman Clarke (VK2), Dave Jenkin (VK3), and Albert Ebenreuter (VK3).

This year's festive season is approaching fast, A Merry Christmas and a very Prosperous New Year to all readers! May 1954 bring us happy hunting on all bands and "good DX"!

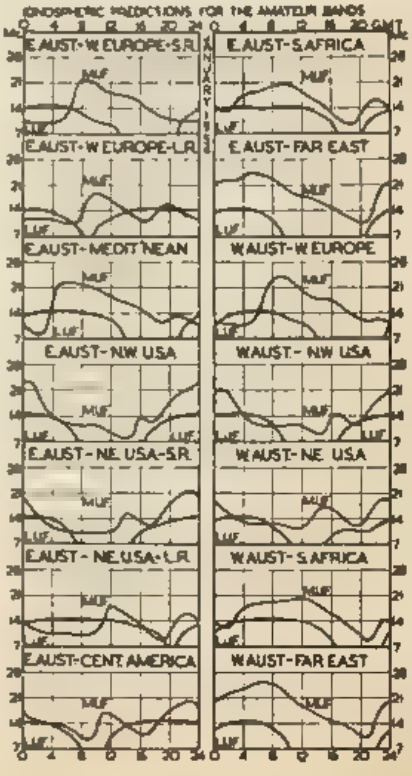
* 10 Belgravia Ave., Box Hill North, E.12, Vic.

CANCELLATION OF ZONE 29 AWARD

In the March, 1952, issue of "A.R.," a paragraph on the Zone 29 Award was published, giving details and rules.

It is now known that the Federal Council have authorised the new "Worked All VK Call Areas Award," and in view of this, and particularly as there has been no applicant for the Zone 29 Award, the Western Australian Division of the Wireless Institute of Australia has decided to cancel the latter award.

PREDICTION CHART FOR JAN., 1954



FEDERAL, QSL, and DIVISIONAL NOTES

FEDERAL

A HAPPY AND PROSPEROUS NEW YEAR

The Federal Council and Federal Executive of the Institute desire to pass on to all members, to all those who have worked so hard during the past year to keep the Amateur movement alive, and to all the advertisers who have so loyally supported "Amateur Radio" magazine—A Happy and Prosperous New Year.

It is appropriate on this occasion to particularly thank the members of the Magazine Committee without whose high ranking ability our valuable Institute publication could not function.

With the additional work of also publishing the Australian Amateur Call Book, this hard working Committee are going to be working harder still. Every Amateur is expressly asked to support the Magazine Committee during 1954 by encouraging capable members to write articles, submit items of news and generally contribute to the requirements of the official organ of the Institute in every way possible; and when the Call Book is available early in March, to actively assist in distributing copies as far afield as possible so that every active Amateur has one on his operating table.

May we all look forward to prosperity in the Amateur field for 1954.

EDITOR ENGAGED

All readers of "Amateur Radio" will be happy to learn that Editor Tom Hogan, who recently underwent a serious operation which had a fifty-fifty chance of letting him walk again after 20 years of being crippled, is now moving about pretty much as a normal person and is fired with a zest for living that his long years of handicap cannot quench.

Even whilst learning to walk again, Tom has been actively taking up the threads that have ensnared him into an engagement to Sister Jennie Seymour, from Prince Henry's Hospital, St. Kilda Road, Melbourne.

Without doubt of contradiction, we know we express the hearty good wishes of every member of the Institute when we say, "Good luck, Tom and Jennie, and may your future together be a long and happy one."

MORE AMATEURS TO VK1

Veteran antarctican, Bill Storer, VK2EG, is again venturing south with the official Antarctic Expedition and will be operating under his old call, VK1EG.

This time Bill is going some 1,800 miles further south of Heard Island where a new Antarctic station will be set up. In the Amateur world, this will be recognised as a new country and it is anybody's guess how busy Bill will be if DX conditions are anywise good.

A new stamp is to be issued by the Commonwealth to celebrate this expedition. Bill, appointed as official postman to also open yet another Post Office for Australia, will be kept "flat out" franking thousands of envelopes from the many ardent philatelists keen to receive a first-day-cover for this unique occasion. Bill expects to leave about the 9th January.

By the time this issue of the magazine goes to press Alan Hawker, VK3IB, will be well on his way to take up station at Macquarie Island and will be operating under the call of VK1AC.

Leaving for Heard Island at the same time as VK1EG goes Johnny Gore, VK2PG, who will be operating under the call VK1PG. So it looks as though we'll all have a chance to work VK1.

A.O.C.P. RESULTS

Following is a list of candidates who were successful at the examination for the Amateur Operator's Certificate of Proficiency held on 13th October, 1953.

New South Wales

Scown, L. T. E., 93 Silver Street, Broken Hill.
Moore, G. B., 33 Richmond Street, Ryde.
Smith, R. J., Old Bathurst Road, Emu Plains.
Hay, P. L., 32 Concord Road, Strathfield.

Victoria

Webster, M. T., 8 Green Street, Ivanhoe.
Jay, L. W., 80 Grandview Grove, Rosanna.
Glegg, B. N. L., 83 Nepean Highway, Elsternwick.

Queensland

Patterson, J. E. 8 Alice Street, Toowoomba.
Beaney, W. S., 17 Spencer Street, Rockhampton.
Fullagar, J. K., Medical Superintendent's Residence, Rockhampton Hospital, Rockhampton.

South Australia

Rowe, C. G., c/o. Dept. of Health, P.O. Box 98, Darwin, N.T.
Tapley, F. K., 10 Burke Street, West Croydon.
Othen, C. J., 9 Holden Street, Hindmarsh.

Western Australia

Grant, L., No. 11 Squadron, R.A.A.F., Pearce.
Hodgson, E. C., 176 Daglish Street, Wembley.
Smith, S. J., 430 Great Eastern Highway, Midland Junction.

Tasmania

McCracken, K. G., 153 Bathurst Street, Hobart.

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FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

A QSO by VK6FL with LU8EN early in November on 14 Mc. is one of the very few that have taken place between VK6 and LU.

Jim DL4QX, ex-W6CUF, who also did a spot of contest operating at W6AM on various occasions, states he will be in Andorra next March for a week or two and will definitely be on the air from that country. He also intends striving for permission to operate from Vatican City and will not be dismayed by a refusal.

The Radio Club of Cuba point out that they are the official QSL Bureau for that country with the QTH unchanged as. R.C.C., Lealtad No. 460, Havana, Cuba.

Rob Gurr, VK5RG, ex-VK1RG, stated during early November that he has completed the issue of all overseas QSLs for contacts made during the 1952 jaunt to Macquarie Island. He promises to issue QSLs for VK stations contacted in the not too distant future.

VK9WZ, A426, Sgt. F. G. Annear, R.A.A.F. Momote, Admiralty Islands, in sending a log for recent "CQ" Contest, to be directed to proper address, states he was snowed under during that contest by his next door neighbours in XG6.

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NEW SOUTH WALES

The November general meeting was held at the usual meeting place on 27th with an attendance of approximately 73 members. The lecturer for the evening was Mr. Jeremy, from S.T.C., who lectured on s.s.s.c. The lecture was very well received and Leo McMahon, who has been very keen on this type of transmission for some time, was the obvious person to give the vote of thanks.

After the meeting, the President left by air for Dubbo to finalise his country re-organisation trips. The Dubbo trip was very successful and thanks must be extended to the Dubbo Radio Club for the hospitality extended over the week-end to Jim. Also Zone Officer of Western Zone, Hugo Stitt, made a 200-mile round trip to help finalise the forming of the new North Western Zone. When the North Western Zone is established, the Western Zone will be changed to Central Western Zone. Further details will be announced later.

The Division Hampest is to be held over the week-end 22nd and 23rd January at Royal Agricultural Showground. Members may park cars inside the grounds. There will be lots of prizes to be won by all. City members are asked to invite a country member down for this week-end so we can have a good roll up.

STOP PRESS

THE FIRST HEADQUARTERS XMAS PARTY

On Wednesday night, 9th December, at the Forrester's Hall, Elizabeth St., Croydon, VK3 inaugurated, what is hoped will be, its annual Christmas Party. An attendance of between 50 and 70, considering the late decision to hold this event, was very encouraging indeed and a very happy time was had by all. Phil 2TX came down from Wyong to show the colour slides and films of his trip (accompanied by his Holden) over Europe and the U.S.A. These were so much appreciated that a return show was booked there and then. Each lady, not always willingly, spoke a few words into the mike on arrival and these were played back during supper. Ray 2ARW showed how remarkable sound effects could be obtained from a mike—all done by two house keys and some paper. Angus 2IQ was our pianist.

Possibly the most remarkable aspect was that the attendance was 95 per cent. from the post-war Amateur, which augurs well for the progress of the Division.

Each lady received a present to mark her attendance at our First Party. The night was a credit to the organisers and workers, Margery and Ray 2ARW, Vic 2AWN, George 2AGO and Mrs. Wilson, Joy Patterson of 2AJW, and Ruth and Jim Corbin (somewhat out of their element). George 2GT, of the Council, is pretty good with a tea towel, believe us! The Xmas Tree was provided by Jim 2HK—decorations by Margery and Vic. All departed homeward around midnight, having enjoyed their first W.I.A. Christmas Party and determined on a social night in the winter (to get into practice for our 1954 event).

HUNTER BRANCH

The November meeting of the Hunter Branch was held on 13th November at the Tighe's Hill Technical College with 17 members in attendance including a welcome visitor, the Divisional President, Jim 2YC.

It was with regret that the Branch accepted the resignation of the Secretary, Varley 2SF, who, due to the pressure of other business, has had to relinquish the position. Varley has been an able and efficient Secretary for a number of years and his efforts on their behalf has been much appreciated by members of the Hunter Branch.

The lecturer for the night was Bob Winch, 2OA, who lectured on the "Grid Dip Oscillator." Bob, in his lecture, explained what a g.d.o. was, how it may be constructed, why it was necessary, and how to use it, including how to measure unknown capacitances and inductances with this instrument.

During the month the Woy Woy Field Day was held on 15th November, which a large number of Hunter Branch members attended, including "Shorty" 2NX, Tom 2PQ, Dave 2BZ, Jack 2ADT, Chris. 2PZ, Neil 2XY, Charlie 2ARV, Ernie 2FP, Les 2AOR, Bill 2XT, Ken 2KG, Frank (A.R.I.) 2AUH, Max 2OT, Johnny 2DZ, Jim 2ZC, Lionel 2CS, Jeff 2VU, Harry 2YL, George 2AGY and associates Milton Hughes and Norm Stanley. The Hunter Branch was successful in winning the Hidden Tx Hunt and the Woy Woy Scramble. Jeff 2VU won the Hidden Tx Hunt. You will recall that he also won the Hunt on 3rd October organised by the Hunter Branch. The Scramble was won by Jack 2ADT. Five prizes in other competitions also went to Hunter Branch members.

Bill 2XT has acquired a Bendix tx to operate 80, 40, 20 and 10 mx and will soon warm up the ether with it. Ron 2ASJ, due to doctor's orders, has been told to rest his voice for at least a month, so he won't be heard on air for at least that length of time. Ron is also adding a 6 mx converter to his shack, but won't be listening to 6 mx until January. A welcome to the Ham bands is extended to Frank Hinks who has been allocated the call sign VK2AUH. A case of combining business with pleasure, Hi! Leo 2QB has again returned to 7 Mc., puting out an f.b. signal from a new 8 watt rig he is operating.

The next meeting of the Hunter Branch will be held at 8 p.m. on **8th January at Tighe's Hill Technical College.**

NORTH COAST ZONE

The onset of summer has made contact between Hams in this area most irregular and it is difficult to gauge the activity of our members. However, it seems most of us have been driven to 14 Mc. judging by the number of North Coast Hams heard on that band under short skip conditions.

The Thursday night zone hook-up at 2030 hours has been rather patchy. On November 19 there were but three starters.

"Blue" 2AFU returned home to Lismore on Saturday, 21st, after a brief sojourn at Tweed Heads, with the promise of cranking up his "dismantled" tx. Alf 2UC/P has been heard on occasionally from Murwillumbah but complains of the hopelessness of operating without a v.f.o. The Kyogle twins are heard on 7 and 3.5 Mc. now and again. Len 2LR was unfortunate enough to miss his visit this year to the Woy Woy Convention, his first miss.

From Lismore we hear that 2LH has recently returned from a flying trip to Sydney and Canberra. This "Customline," no rumour has it, has a certificate for airworthiness. Charlie 2ADE, the only really active Ham in Casino, is heard on 3.5 and 14 Mc. on odd occasions. It is truly amazing to hear the solid signal Charlie gets from that most unimposing antenna. Why spend time and money on a rotary beam when one has an ideal location. The hardest spot to work is Sydney, so 2RK says, and upon investigation, comes to the conclusion that no one in Sydney uses 7 Mc. at night. Does anyone remember the occasion, some years ago, when the use of local phone on 7 Mc. was frowned upon.

No news of the Byron Bay boys, 2AGM and 2AFP, but we were pleased to hear Russ 2NT from Tenterfield on 7 Mc. on Sunday, 22nd.

The six metre band is coming in for a good deal of attention on the North Coast. Old stalwart, Crieff 2XO, is firing away already and has forwarded a 6 mx crystal to Len 2LR, thus driving the last wedge to till the switch

on Len's 6 mx rig. Newcomer Web 2AQI, from Armidale, is already on the job trying to contact Reg 2ATS, in Inverell. Alec 2TG, of Bellingen, is also active on 6 mx, so the North Coast is well represented. The 2LH 2ADE 2AEV circuit is, of course, still functioning day by day.

By the time these notes are printed, we will have had a visit to the Coast by Harold 2AHA, of Newcastle, and Syd 2APS, of Tamworth. Spying out the ground for the next Urunga 2 mx Hunt, I'll bet!

It is with regret that we note the cancellation of two call signs on the North Coast in the persons of Doug 2DS, of Port Macquarie, and Jack 2VK, of Coff's Harbour. No doubt all the boys are sorry they are "giving the game away," but do extend their best wishes.

When you read these notes, it will be 1954, so I trust you will all have enjoyed the festive period and I do wish you all a happy and prosperous New Year. Whilst speaking on the prosperous side—don't forget to save for Urunga at Easter!

SOUTH WESTERN ZONE

Not much news from this zone for the month. I think we are all having a breather following the Convention. Don 2RS is about to move into his new QTH, has made provision for a comfortable shack, and is talking about the space he will have for antennae—the rig should be bigger and better Don. Geoff 2BQ is concentrating on 80 Mc. and has had some DX contacts; has not been heard in Coolamon as yet, but that is the fault of my converter not Geoff's tx. Stan 2AID heard occasionally on 40 and 80 mx and is having fun re-building. Alf 2BW not heard for some time, must be the busy season Alf.

Lyn 2AQE is very busy harvesting, getting up too early, and going to bed too late, to have any time for Ham Radio. Stewart 2PL reports that the chaps at Griffith are getting all 144 Mc minded, building up rx's and beams for that band; we really must keep that sked one of these days. 2AJO has gone all DX happy working 14 and 21 Mc and getting a few new countries; uses a T2FD on 21 Mc. I would like to wish all in the zone a very Merry Xmas and a Prosperous New Year with lots of DX.

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VICTORIA

Mr Editor has me tied in knots this month with his deadline. The crystal ball is in pawn so can tell nothing of the December meeting. 3FO has covered the State Convention -thanks Col—and I've lost my notes on the last Tx hunt. Add to all this, most of the last month has been spent playing round with 288 Mc. gear (hope I'm not treading on your toes, Jim 3ABA), so I don't know much about what has been going on.

If I remember correctly the last Tx hunt resulted as follows: 1st, Bob Hall, 2nd Jack Duncan 3rd Eric Wardle. I seem to recollect thinking in Eric's case it was beginner's luck. You probably won't finish nearer than sixth again Eric.

Come to think of it there was the Annual Dinner, but as I was not present, don't feel qualified to comment. The only chaps I've seen who did attend were 3JJ, 3TX and 3AHC and they wont talk when I'm around, or if they do it's not for publication. Looks as though I'll have to leave this item to Col.

Visitors during the month included 3TV and 3TX. 3TV is on leave from Woomera and will be home for a few months. Have not heard him on the air as yet. After the laughs I got from Bill 3TX, I haven't the heart to have a shot at him. He's the brightest visitor I've ever had. 3AWW is no longer heard, now operating under 3WL. Reckons he'll save time in contests with a two-letter call.

3AMR was having trouble with harmonics early in the month, but haven't heard whether they have gone or not. 3ABO was having hum trouble but a partial re-build cleaned the trouble up. 3BH having a spell of hospitalisation. Hope you are soon about again Charlie.

Large print now please, and a fan-fare of trumpets! Tom 3HX—also Editor—has been and gone and done it! All those months spent in hospital were not wasted. In fact they were really enjoyed. Now we know why he was awake at 4 o'clock every morning, why he could disorganise the workings of that fine institution with impunity, why he was presented with that fine birthday cake, why he was taken out on the balcony on fine afternoons and why—oh heck where would this end!

It was all part and parcel of a big conspiracy. In short, Tom has reached that stage in life that most of us reach sooner or later, where in a weak moment we ask one of the gentler sex to starve with us forever. In Tom's case, it is the Sister who saw him through his rough spin and she has agreed that such a life would be in keeping with her own ideas. Just wait till she sees the types you associate with Tom.

All joking aside though Tom, we all offer our sincerest congratulations on your engagement. Boy what a write-up I'll give the wedding.

Wonder how long now before the old stalwart of the Mag. Committee takes the plunge—yes you Jack.

By now you will all be resolving to spend more time in the garden, painting the house or some such thing, not that you'll do it, so I'll leave you to it and let 5PS pad out the last few pages of this month's mag.

VICTORIAN DIVISION W.I.A. 4th ANNUAL STATE CONVENTION

The Fourth Annual Convention of the Division was held at Benalla on the week-end of 28th and 29th November under perfect weather conditions. All the arrangements were made by members of the North Eastern Zone and great credit goes to those boys for the excellent smooth running of the Convention.

On the Saturday visitors assembled at the Benalla Post Office and were met by Rex 3UR and Col 3WQ, who had lapel cards all made out with the call signs and members' names for identification. The dinner was officially opened and guests welcomed by His Worship the Mayor of Benalla. Approximately 60 sat down to a most excellent repast, comprising roast turkey and ham, followed by sweets and coffee.

The usual toasts were given, the first being to The Queen, proposed by Max Hull. The toast to the W.I.A. was ably proposed by Col 3WQ and responded to by Len Jackson. Fred 3YS ably proposed the health to the P.M.G. and this was responded to by Frank 3ZU. To the N.E. Zone, Reg 3LS proposed their health, and Rex 3UR ably responded. The visitors' toast was proposed by Col 3FO and replied to by Mr. F. Cook, M.L.A.

The Convention was officially opened by Mr. Cook, M.L.A., and in his remarks he spoke of the excellent work done by the Amateurs in public life and the debt of gratitude that the community owe to the experiments of the pioneers of radio. The President then delivered his opening remarks and the minutes of the last Convention were read and confirmed. He then called on Rex 3UR to come forward and receive, on behalf of the N.E. Zone, the Kinnear Trophy which had been awarded to them. In the agenda there were 13 items and the debates started. Much good will come of the recommendations passed and Council will implement them as soon as possible.

A presentation to the President of the Division, 3TF, was made by Ken 3KR on behalf of the Zone. It comprised a universal xmitter, complete with tubes and guaranteed to work, especially the final tube. The rx was a smaller bit of equipment, but can be universally used in every home. It comprised a useful family utensil with a handle on the side. Gordon, in reply, thanked the Zone for their gift and said he would use the tx in contacting the Zone and felt sure that he would be able to get through at all times.

On Sunday, all assembled at 9.15 a.m. for the social side of the Convention. The first visit was an inspection of Reynolds Chain Factory—a truly remarkable industry and well worth the visit. All the various stages of chain making were explained by members of the staff. Next was a visit to Latoof and Callill garment establishment. Here, the lady members of the party were fully catered for, as the process of making a dress from the material to the finished garment was fully explained by the Manager. At the conclusion of this visit, refreshments were provided by the management and fully appreciated by all. The party then split up, some went to the D.C.A. Homing Beacon, and others to the Rural Automatic Exchange—both proving very interesting to members.

The highlight was the picnic lunch at Casey's Weir. Here under the shade of gum trees everybody partook of tasty sandwiches and tea plus a few flies and wogs, interspersed with CQs from mobile equipment.

The final visit was to the S.E.C. link at Mt. Major. From the top of the Mount a most glorious view can be obtained. The equipment is fully automatic in operation and runs 24 hours per day all the year. The link is used between Melbourne to Macedon, to Mt. Stanley, to Kiewa and Benalla, serving the north eastern part of the S.E.C. scheme.

This concluded the Convention and members wended their way home. Charlie 3TI and a friend travelled 320 miles to be present and 3SS, 3DY, 3QZ and Mrs. Colley travelled 250 miles. Bill 3AKW made the trip from Lubeck by train. Keith 3HK had 6 mx mobile. Don 3ALQ, Neville 3ACN and Reg 3LS had 40 and 80 mx gear. Len 3LN did some high pressure salesmanship with his mobile 2 mx set-up. The Convention was a wonderful success and everybody that attended had a thoroughly enjoyable week-end.

NORTH EASTERN ZONE

A large number of zone members turned up to support the excellent results of the efforts of Rex 3UR, Hugh 3AHF, Ken 3KR and Jack 3PF in their organising of the 1953 State Convention in Benalla at the end of November. It is very much regretted that limited space will not permit enumerating all the Hams we were so pleased to see, as these notes are already late by special arrangement and we expect that our issue of space is now allotted.

However we were pleased to meet Frank 3ZU there and Henry 3HP who had left those 40 ft. poles to come down with Howard 3YV who will soon be on the air with two kilowatts (think that one out!), but unfortunately we were unable to have the company of Jim 3JK; we all wish him a speedy relief from his affliction. Also we missed Gordon 3XU, however Doug 3IJ was present and it is understood that he is to be helped by Chas 3ACW and Alan 3ALN in a spare time interest of assisting in setting up the local Rural Fire Brigade radio. Associates Jim Harrington, Vern Wyatt and later "Scotty" seemed to take in all the proceedings with interest and Col 3WQ was in great form.

Murray 3HZ apparently would not stay home to fix that audio fault in his 6 mx rig. Alan

3UI and Peter 3APT were locals with v.h.f. gear at the Convention and Syd 3CI was to have signals on the air from his home station to help them. Keith 3JC and Tom 3TS were there to look on, but Vic 3ABX was missed as was Des 3CO as he was on duty during the opening session. Stan 3AGT got a mention for his enthusiasm in making a trip up to Wagga to a Convention. It is assumed that professional interests cramped the style of Alex 3AT and Les 3ALE and necessitated their staying home, but we would have much liked to have met Ron 3AQG and Des 3BP if they had been able to make the trip.

These notes would not be complete this issue without wishing everybody the Compliments of the Season and good listening in 1954.

SOUTH WESTERN ZONE

The Zone Convention was held at Colac on the 7th and 8th of November and turned out a great success in every way but the weather, and Gordon 3AGV and Jack 3AKC had nothing to do with that. During Saturday some very good mobile work on 80 mx was done by 3ALQ and gang (3AID, 3ASD, 3ZM), 3AKR, 3AGD and 3II, and 3ANQ, travelling to Colac. Twenty members attended the usual dinner that opens proceedings, the catering was perfectly topped off with liquid refreshments. The evening was in the hands of Leigh 3II with a programme of talkies. If you see any of the boys demonstrating unarmed combat blame "Snow" 3AID. Sunday opened with shack visits and welcoming some more visitors from Melbourne and Geelong. Then the tx hunt was begun with the tx being hidden at Red Rock, 19 miles out. Result, 3AGD and gang, 20 minutes; 3LN and family, 27 minutes; 3ALP. A listen to 3WI and earbashing followed, then a break for dinner.

The big event—"All Band Scramble"—started after dinner. 3AKR by making 22 contacts was the top scorer. The party then went back to 3AGV's and a short tx hunt again, this time resulting 3AGD, 10 min.; 3LN, 12 mins.; 3AEH, 15 mins. A visit to the brick works proved very interesting and rather novel for a Ham "do." Our thanks go to 3AGV, 3AKC, 3AGE, 3KX, 3ACV, and 3APR for a very good show.

Better news about members this month. We wish to extend a warm welcome to Jim 3ACV, ex7JT, now at 3CS, and Reg at Stoneyford, who has just received his call—3APR. Welcome to the zone chaps. Don't forget to welcome ZL4JA if he calls on you in the next three months, he will be in VK3 on a working holiday. Harry is a University student.

CENTRAL WESTERN ZONE

Very little activity noticed throughout the zone this month. The Wednesday night hook-ups has been sadly lacking participants, so commencing next Wednesday the hook-up will start at 2030 hours instead of 1930 to give the boys on the land a little more time to polish off the evening meal without suffering indigestion. Unfortunately the zone is losing yet another member, John 3AKJ, of Horsham, who is transferring his rig to Frankston. Another John, 3OK, sure fixed his b.c.i. troubles—sold his rig lock stock and barrel. Merv. 3AFO (Horsham) and Ray 3ATN (Birchip) not having much luck working each other on 2 mx. Trev. must be sucking it all in on the way Ray.

At the time of writing, Bill 3AKW is attending the State Convention at Benalla. Dick 3RR is still not 100 per cent. fit, we're sorry to hear that. Trev. 3ATR, Jim 3DP and Herb. 3NN from now on will be up to their ears in work on their farms so I guess not much will be heard of you chappies until the harvest is finalised. Well, like DX on 2 mx, news is equally as scarce, so I'll sign by wishing you all the very best for 1954.

GEELONG AMATEUR RADIO CLUB

The meeting on 4th Nov. took the form of a Tx Hunt on 3.5 Mc. Tx was taken out by 3AWZ and 3AEH to the Leopold area, about 7 miles from Geelong. The signal from the FSD was readable on the loops without difficulty. Results: 1st, J. Beckingham and 3WT; 2nd, M. Stock and party; third, 3ALP. R. Highway followed on his d.f. equipped motor cycle.

Three Geelong cars went to the Colac Convention on 8th Nov., 3ALP, 3AEH and 3AWZ—all with mobile equipment. The cars kept in close contact with each other at all times and had several interesting contacts as well. 3AEH had a contact with Hamilton while mobile on the Colac-Geelong road, and 3AWZ worked 3AGV of Colac on 144 Mc. for a distance of about 5 miles on the return trip to Geelong. The locals were moderately successful in the Tx Hunt, 3ALP being 3rd and 3AWZ 5th in the 10-mile event, and 3AEH was 3rd with 3ALP 5th in the 5-mile hunt.

The night of 18th Nov. was spent on the repair and adjustment of some of the Club's gear and as a result, the Type 3, Class C Wavemeter and the rx are all functioning OK.

QUEENSLAND

November meeting was by far the best we have had, in attendance, for some time and it was quite pleasing to see so many of you fellows present, included among the visitors from afar were Jim 4HZ from Gympie and Joe Tunkl from VK5 land, an old friend of Ergs. Strange though he didn't know the worthy scribe from down there.

Business was pushed through and then the evening was taken up with a fine presentation of stills in colour, and ably described by Sam 4CZ, covering his tour of the British Isles, the Continent, and America during the Coronation. The whole presented with a finesse by Sam, putting him in the class of an expert on travelogues. Gave me the urge to wander to far and distant places. Thanks again Sam.

The evening finished with a Dutch auction and the W.I.A. benefitted to some extent by the support given by all who took the opportunity of acquiring those bits and pieces they were wanting, also those who donated the gear for auction. Myself missing the auctioneer's eye, missed a couple of bottles of the best. The evening proved enjoyable so what say some more fellows, if you have some gear you want to dispose of, we will sell it for you at a commission or the proceeds to this Division.

Jack 4JF has just returned from a tour of the near northern cities and is very enthusiastic on the welcome he received up that way. He stayed with Bob 4NG and Bill 4WD at Rocky. They had a get together in Bob's office one night which I believe looked like going into the wee sma' hours. Those present were 4NG, 4WD, 4EC, 4VD, 4ZL, 4MJ, 4CL, and I'm told it was only Ham Radio that kept them there so long. Jack also met Hal 4DO and Len 4DI and "Doc" who hopes to get a licence one of these days. Bill 4WD presented some miniature tubes to be disposed of for this Division.

The only person contacted in Bundaberg was Jack 4SW of Gympie; proved more lucrative for Jack, he was able to meet Les 4XJ who, by the way, is going south on a caravan tour and hopes for 7 Mc. contacts on the way. While at Jim's 4HZ, he met Eric 4XR who took him to meet Col 4CR. Which brings up the point of what is meant by push pull. Jack has a new idea of it now. While expertly fixing junior's model plane, Col cast an enquiring eye at Jack, asking him did he know anything about push pull. Jack, being the wary kind and not liking the receiving end of a lengthy discourse on radio, says a little. Col, with a whoop of triumph, disappears, returning with a large stump and a cross cut saw. Now Jack informs me it's the first time he has had a sore back from delving into the intracacies of push pull. Reckon if any rare QSLs come for Col, Jack will return them unknown. Anyhow, Jack enjoyed the exercise and the "cuppa" that followed. But fellows beware of the query push pull, don't say you haven't been warned.

Well fellows nought from Ipswich as the dead line is earlier this month and my spy evidently doesn't know, but I guess all goes well up there.

Sorry chaps, but this is all for this month, so I'll close wishing you all on behalf of the Council all the best for 1954.

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SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division was held at the clubrooms to a representative gathering of members and visitors and took the form of a "Buy and Sell" evening. I find it increasingly difficult to write anything new about these particular evenings and can only say that they appear to be one of the most popular with the members, judging by the attendance and the continued bursts of laughter, and also that they serve a useful double purpose in bringing out into the open a lot of gear which is apparently much in demand by the younger members and also helps to swell the fund from which the various bits and pieces of test gear are purchased from time to time, with consequent benefit to the entire membership. It goes without saying that the two auctioneers were again the terrible twins —Dougal 5BY and Ross 5LW—and the success of the evening was due in no small degree to their antics. All in all, a good time was had by all and when it is remembered that the lights in the hall did not go out until 11.30 p.m., then nothing further need be said.

Among the welcome visitors were Bob 5BG from up North, and Lyell Herdman (G6HD) who was on the way home from Woomera Rocket Range after six months or so up there. Luke 5LL made a welcome re-appearance at the meeting and if I am any sort of a judge, it won't be long before he is on the air again. You know, I was looking at him sitting in the front row, and he does not look a day older from when he was on the air at Kilkenny. How do you do it OM?

I was talking to Lyell G6HD after the meeting and he told me that no matter what part of the world that he might have been, he always found that the Radio Amateur always seemed to have come out of the same mould. Although the language and customs might appear very different on the surface, underneath a Ham was a Ham and he had only to produce his QSL card to be immediately accepted as one of the gang.

UPPER MURRAY AREAS

The Upper Murray function to entertain the wives and families was held on 10th Nov. and a good time was had by all. Tom 5TL was the organiser and it was his intention to ask all present to take part in the evening's entertainment, however Hurtle 5RE said, "Don't ask them, tell them!" This good piece of advice produced the necessary response and the results were indeed gratifying. Murray 5CF delivered a short address of welcome to the guests, Fred 5MA organised about five minutes of children's games (the big children seemed to enjoy this as well or better than the little children), Harry 5KW conducted a "give-away" quiz show without washing machines, Lux or Persil. However all the competitors received at least one chocolate frog, together with some who were not competitors. Hurtle 5RE entertained with some sleight of hand tricks and also a short picture show. Alec 5XO made presentations to the "rising generation," and as some of the children were home in bed, the parents did the honours for him when they returned home, and Tom 5TL raised his voice in song accompanied by Mrs. 5CF who also provided the musical side of the entertainment. The distribution of the refreshments was in the capable hands of Hughie 5BC, assisted by associate member Wolfgang.

Fred 5MA has installed a new half wave antenna for 3.5 Mc. and fed, but as Fred has been seen lately on the business end of a rotary hoe cultivating his holding, he does not get much time to try it out, although he makes a valiant attempt to hold the "Northern Net" together. Hughie 5BC has not been heard on the air for some time but he has been busy building gear for 144 Mc. and his projected 16 element array is more advanced than just thinking. Harry 5KW has been away in the city for his annual leave but returned home for the November function. I wondered why we did not see you at the general meeting OM.

Murray 5CF still has his gear in various stages of "dismantlement" which is a welcome change from saying that he has not been heard this month. Hurtle 5RE has been dabbling in pictures a little, but has been getting his share of the spoils on 14 Mc. whenever that band opens up. Tom 5TL has appeared regularly on 3.5 Mc. and is still to be heard on the air each Thursday evening for the edification of the morse code learners at 7 p.m. He has also been getting his share of the available DX on 14 Mc. at odd times. He tells me that he had a contact with Scott (1AF) the other day and Scott told him that his brother-in-law Rob 5RG, ex-1RG, had gone to Sydney to get married. Well! I have to get my news from Macquarie Island these days, do I?

The President of the Woomera Radio Club, Len 5OC-5OB, will be making a tour of the Upper Murray district over the Xmas period and his trip will inclure Waikerie, Renmark, Mildura, Birchip, Ouyen, thence to Pinnaroo, Wellington and then Adelaide. Save up the surplus fruit boys, and let him have it as he passes, he will be very appreciative, but don't let it hit him too hard, Presidents are made of fragile material. Ahem!!

Frank 5MZ returned from his trip to VK3 looking well and fit and very grateful for the many courtesies extended to him on the journey. He told me that he was surprised at the number of Hams who wanted to know what sort of a joker the scribe for VK5 really was. One of the boys in Ballarat even went as far as to say that he thought that the scribe was an "old dill." Frank, ever loyal to his Division, quickly answered, "Ransy is by no means old!" Thanks Frank, that's telling them. Wait a minute, something looks not quite right to me, I think that I have been taken for a ride!!

Charlie Othen, 5ON, came on the air this week and his fourth contact was with Scott 1AF, ex-5AF. Charlie, like Joe 5JO, should prove an inspiration to all and every associate member who may at some time or other become discouraged with their A.O.C.P. attempts. He had reached the stage where any further shots at the exam only looked a waste of time, high marks in everything bar the code was the answer every time he sat, and if it had not been for the fact that he felt that to give up would only be letting Doc 5MD down, then I feel sure he would have faded out of Amateur Radio. In his trial gallops at Doc's shack he could take the code at any and every speed, but once inside the exam room then he would get colly wobbles in the stomach or something and proceed to bite the dust forcibly. Anyway, Charlie is on the air and we all salute him. The call sign VK5ON will always stand for

persistence and the spirit of never give up. Long may it be heard on the air.

The other afternoon I was cruising along Wakefield Road on my two-wheel Jaguar and my attention was attracted to a young man approaching me on the opposite side of the road, also on a two-wheeler. His eyes were sticking out like er-er-shall we say organ stops, and all of a sudden I recognised him as our youngest associate member, to wit, Master Robson. I gave him my usual cheery greeting and he responded with some appearance of embarrassment. I can only assume that he thought that Presidents should be in a four-wheel Rolls Royce instead of a two-wheel Jaguar. I humbly apologise to all former Presidents.

The date of the picnic was originally given as 25th January, but when a few enquiries were made it was found that the holiday was being kept up on 1st February. Therefore harken my friends to the new date of the picnic. Also remember that the success of the picnic is dependent upon your patronage, the members of the committee have done their share and it is up to you all to roll up and show that you want a picnic. We aim to please—but we dishearten easy!!

You know, each month as I write these notes, I find at least one of my fellow Hams falling to take one of the biggest hurdles of life. Some fall early, some fall late, but fall they do, and eventually walk up the aisle with a member of the fair sex who has captured them from their first love—Amateur Radio. Fortunately for my faith in human nature, there has always been one member of the Amateur fraternity who has stood out like a guiding star, never once looking like even stumbling, and as his fellow Hams fell one by one in the race he has forged onwards and onwards, ignoring the wiles and machinations of the fair sex and managing to side-step the arrows of that little fellow known as Cupid. Then, just as he seemed set to take all hurdles in his stride, what must he do but go into hospital and when he leaves the said hospital, one of the sisters is wearing a symbol of his undying love, sometimes spelt LUV. Tom Hogan, 3HX, you fox, you wolf, you-you-you-words fail me, I am speechless. The orchestra will now play "Hearts and Flowers"!! Tom, I am tickled pink, it's the best news I've heard for years and I hasten to pass on our sincere congratulations. Glad to know that you are home again. By the way, I will be pleased to be matron-of-honour—with the accent on the matron!!

Each year at the Xmas social we always invite a number of "oldtimers" to be our guests for the night, and believe me some of them are real oldtimers in Amateur Radio. Strange as it may seem, on the Council welcoming these gentlemen is one who is more entitled to the compliment "oldtimer" than is probably most of our guests. I refer to Hal 5AW-5WI, who was in Ham Radio when most of the members were just a twinkling star in Heaven, or under a cabbage, or something. I felt that I had to make some mention of this fact this year, because last year his XYL gave me the rounds of the kitchen because I had dared to leave his name out of the list of "oldtimers." Happy now Vly.? Can I call in again for a cup of tea?

The Woomera Radio Club this month became affiliated with the W.I.A. (S.A. Division) and we welcome them to the ranks of the leading Division in the Commonwealth. The President, Len 5OB-5OC, is a most active worker in the club and is really getting things going. He is known these days as "faint heart never won a fat turkey Baker." Mr. Ray Farmer is getting down to some solid studying these days and hopes to get the coveted A.O.C.P. when he sits for the exam next February. The station is fairly active during the evenings, mainly because of the fact that Len's XYL being a long way away down in civilisation and therefore he does not have to worry about the usual household chores. Most of the boys have a ragchew each Sunday morning from 9 a.m. until midday and are always on the lookout for contacts with any VK5 stations. The energetic secretary of the club, Ron 5FY, works mainly on c.w., but has managed to have a ragchew to Duncan 5AX who is in Gawler, from whence Ron migrated. Ted 5JE has worked quite a few Yanks from the club station and the reports have been more than favourable. The transmitter is a TM11 with 100 watts on c.w. and 30 watts on phone, which is on loan from the Department of Supply, and although its modulation capabilities fall a bit short for the chaps with c.w. voices, it will fill the gap until the new one materialises.

Well, here we are at the close of one year and the dawn of another. Few of us have been lucky enough to achieve all that we had set out to do in the year that has ended, but most have at least achieved something for Amateur Radio. Speaking personally, I have, in my humble way, tried to keep alive in these monthly notes the spirit of Ham Radio, and if at times through over enthusiasm in my task I may possibly have trodden on anybody's pet corns, then I apologise sincerely. After all I have only set out to make you laugh a little, tried to foster the idea that fundamentally there are no states, divisions, nor any boundaries in our grand old hobby, and last but by no means least, I have written these notes because I genuinely enjoy doing so and also because of the many lasting friendships they have made for me in all divisions. To all my fellow scribes who have at times allowed me to needle them, I thank them from the bottom of what passes for my heart, and I can assure them that if they only knew the enjoyment that our joint attempts at mud-slinging has given our many readers, then they will all be back on the old stand during 1954. May I, on behalf of all the gang here in VK5 wish all Hams, wherever they may be, all that they wish themselves in the new year, and don't forget fellows, whenever you hear a VK5 signal on the air, then you are hearing a brother in Ham Radio! 73 DE VK5—

P.S.—Just in case a number of you readers are now reduced to tears because of the harsh treatment often handed out to me by the various scribes, please dry your tears and remember the Parson's motto: "Nil Carborundum Illegitimatosum," which being translated from the Latin reads, "Don't let the so-and-so's grind you down!!"

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WESTERN AUSTRALIA

The November general meeting had a highlight in so far as the lecture and the lecturer 6BO, one of the leading v.h.f. exponents in VK6, gave an exceedingly interesting and meaty lecture on his efforts in the construction and working of several pieces of equipment. Starting from scratch, without the help of disposals gear, his development by trial and error—but mostly trial and success—with circuits and tubes exhibited both a patience and thoroughness that could only be imparted by such a lecture and demonstration of the effectiveness of the equipment.

While conditions were not so good on the 20 and 40 mx bands, it gave him the opportunity to concentrate on v.h.f. 144 and 288 Mc., instead of giving the game away, or sitting waiting for rare DX. The gear consisted of a 288 Mc. tx crystal controlled with output of 15 watts, and the super regen rx on 144 Mc. This was an easy "get-at-able" tx, suitable for an output of 50 to 60 watts, and last but not least, a 7 and 50 Mc. portable built into a very small chassis. All these tx's were fitted for phone. Rollo concluded with a few suggestions to the budding v.h.f. man, and one was not to take definitely the published figures of tubes and the grid drive values.

A new member was elected, Mr. S. J. Smith, of 430 Gt. Eastern Highway, Midland Junction. Welcome OM. As yet no call sign has been allotted.

Out of the last Advisory Committee was a recommendation to members to the effect that as soon as a tx is found to be faulty or the modulator not doing its job, that the set be immediately placed on to a dummy load until the fault is rectified. Another recommendation is that the position of the 14 Mc. band between 14300 and 14350 Kc. be used more than it is. It is shunned by European stations, but there is no reason why it could not be used more often by those stations between S.E. Asia and the Eastern Pacific.

Word comes from 6EJ, Jack Cowles, of Bencubbin, that he will shortly be on the air with a small power set.

Reception of the W.I.A. news on 40 at 9.30 a.m. is improving somewhat for the middle distance country boys, although it is not reliable enough to do without the 80 mx re-transmission—a little later in the summer might see an improvement.

The W.I.A. Picnic will have been held before this appears in print, but indications are that it will be a successful one.

Council meetings are held at Council members' QTHs, and as 6AG resides in the hills the meeting is reserved for the last in the year. Nearly all Council members can make the trip and the business is fitted in before and after lunch. On one occasion some years ago, there was a catch in it. There was a mast all ready to be stood on end, and Council members provided the united strength necessary to do it.

With this issue VK6 extends its greetings to all VKs and expresses the hope of good times ahead.

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TASMANIA

Main topic of news this month is the preparations for the building of the VK7WI tx and other matters regarding the Exhibition. By the time this appears in print the Exhibition will be almost due to open—7th January is the opening date. The response to the appeal for parts to build the tx has been really magnificent and on behalf of the committee, I would like to thank all those who made donations of either parts, cash or time. Of course the show isn't over yet by any means, and staffing of the station during the hours the Exhibition is open is still a major problem; any offers of help to operate the station will be very gratefully accepted and even an hour for meal relief will help. A tremendous amount of work has gone into the organisation of the show and we don't want it to fall flat because of lack of operators. The remote rx tuning per 144 Mc. link had its first trial on 25th November when 7OM worked several stations from his home location at Bellerive and remotely tuning the 7LE rx at South Hobart.

Seems like summer is on the way at last as the 50 Mc. band is starting to pick up and at a recent opening, VK4 and VK2 were worked by 7AJ and the northern gang.

Heard an enquiry re field days during the coming summer—the idea is an excellent one and a lot of fun is had at these outings. We must certainly think about it when the Exhibition is over.

The Sunday night ragchew on 80 mx seems to be here to stay and is being well patronised—mainstays are 7OM, 7YY and 7MY.

I must apologise for the shortage of news this month, but my spies have let me down and the December meeting doesn't take place until next Wednesday. But I take this opportunity on behalf of the Council to wish all members a Merry Christmas and a most prosperous New Year.

NORTHERN ZONE

Last month the zone held a field day in the form of a 144 Mc. Tx Hunt. It is the first the writer has been to whilst in this zone and to all intents and purposes was very successful. Those seen at the Flour Mill congregating point and caused much interest to the non-radio fraternity of the city with their unusual beams, etc., were 7GM, 7RK, 7BQ, 7AM, 7LZ and 7CA, also two of our enthusiastic associates, Ron Rich (with friend) and Henry Solomon. The honours for the day went to Ron Rich and partner (who had 7PF's gear), closely followed by 7GM/7RK combination. Others were well behind and had to be called in. Many were the experiences of some of the members. The tx was hidden in a mammoth tea chest, copiously supplied with magazines by 7XW and 7LX. 7LX's mother thoughtfully provided a very welcome afternoon tea for us. Due to the interest in the above, I believe another day is to be arranged, tentatively on 17th January.

Col 7LZ and Len 7BQ have been active on 6 mx. Gadding about the mainland on holidays is 7GM and is visiting a few shacks in VK3 and VK2. 3AIX told me a few days ago that he had been to visit him. 7XW had a letter from W8QHH who is known for QRP DX (he uses 40-60 watts in W-land) and now has 322 countries confirmed of 333. 7PF, in very serious mood these days, is busily scanning over house plans, trying to decide where will be the best room to run feeders. 7RK has borrowed a 'scope—not to look at keying waveforms surely Ray?

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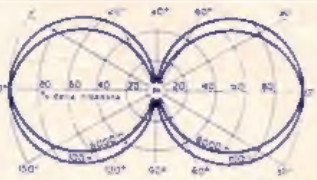
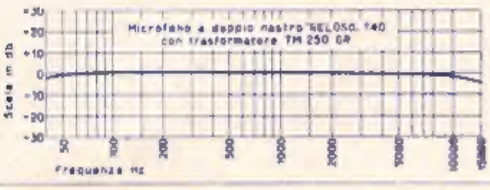


Left: Cat. 416 Double Ribbon Microphone.
Above: Polar diagram response curve of Cat. 416.
Below: Characteristic response graph of Cat. 416.



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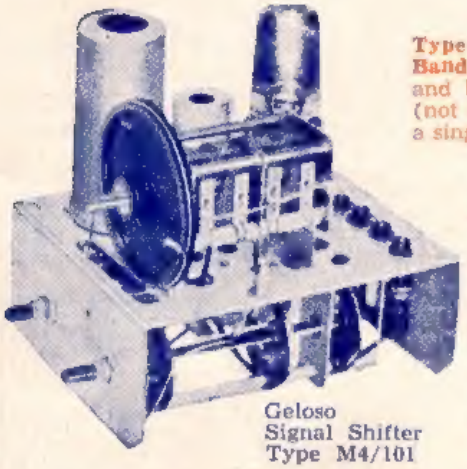

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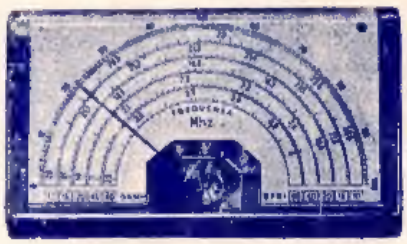

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